

NOTICE OF PROPOSED RULEMAKING
MARICOPA COUNTY AIR POLLUTION CONTROL REGULATIONS
REGULATION III
RULE 316 – NONMETALLIC MINERAL PROCESSING

PREAMBLE

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| <u>1. Sections affected</u> | <u>Rulemaking action</u> |
| Rule 316 | Amend |

- 2. Statutory authority for the rulemaking:**
Authorizing statutes: A.R.S. §§ 49-474, 49-479, and 49-480
Implementing statute: A.R.S. § 49-112

- 3. List of all previous notices appearing in the register addressing the proposed rule:**
Notice of Rulemaking Docket Opening: 13 A.A.R. 2175, June 22, 2007

- 4. The name and address of agency personnel with whom persons may communicate regarding the rulemaking:**

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- 5. An explanation of the rule, including the agency's reasons for initiating the rulemaking:**
Rule 316 limits the emission of particulate matter (PM₁₀) into the ambient air from any commercial and/or industrial nonmetallic mineral processing plant and/or rock product plant. PM₁₀ emissions are generated from commercial and/or industrial nonmetallic mineral processing plants and/or rock product plants during the mining, processing, and handling (i.e., transporting, loading/unloading, conveying, crushing, screening, mixing, and storing) of nonmetallic minerals. Unpaved roads and trackout are other sources of PM₁₀ emissions from such operations.

Maricopa County adopted Rule 316 in July 1993 and revised Rule 316 in April 1999, in order to make the existing standards consistent with revisions to the Standards Of Performance For Nonmetallic

Mineral Processing Plants (40 Code Of Federal Regulations (CFR) Part 60 Subpart OOO). In July 2002, the Environmental Protection Agency (EPA) granted Arizona's request to extend the Clean Air Act deadline for attainment of the annual and 24-hour PM₁₀ standards from 2001 to 2006. With of this deadline extension, Arizona was required to submit to the EPA a revised PM₁₀ State Implementation Plan (SIP), which was to include control strategies that meet the best available control measures (BACM) test and the most stringent measures (MSM) test for significant sources and source categories. Maricopa County revised Rule 316 in June 2005 to address BACM and MSM. However, EPA has advised Maricopa County that Rule 316 has not included all best available control measures (BACM) and most stringent measures (MSM) for nonmetallic mineral mining sources. The EPA noted that Maricopa County had not included a requirement that sources maintain a minimum moisture content on crushing and screening operations and monitor the moisture content for compliance citing Clark County, Nevada Section 34.

The Maricopa County Air Quality Department (MCAQD) is now proposing revisions to Rule 316 to correct section references - to link required control measures to applicable performance standards or test methods - to improve the rule's clarity and regulatory uniformity among related rules in the Maricopa County Air Pollution Control Regulations, and to include a requirement that sources maintain a minimum moisture content on crushing and screening operations and monitor the moisture content for compliance. Also, the MCAQD is proposing revisions to Rule 316 to comply with commitments made in the Five Percent Plan for PM₁₀. Since the region did not attain the PM₁₀ standard by December 31, 2006, the region needs to submit to the Environmental Protection Agency (EPA) a Five Percent Plan for PM₁₀ by December 31, 2007. The Five Percent Plan for PM₁₀ must demonstrate 5% reductions per year in emissions from the date of submission to the EPA.

Section By Section Explanation Of Changes:

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| Section 227: | To add "For the purpose of this definition, haul/access roads are not in permanent areas of a facility." |
| Section 235: | To add "raw material storage and distribution." |
| Section 236: | To change "ASTM Method C136-01" to "ASTM Method C136-06" and to delete "of the Environmental Protection Agency (EPA)." |
| New Section 240: | To add "Permanent Areas Of A Facility - Areas that remain in-place for 180 days or more in 12 consecutive months. Permanent areas of a facility include the following areas: entrances, exits, parking areas, office areas, warehouse areas, maintenance areas (not including maintenance areas that are in the quarry or pit), concrete plant areas, asphaltic plant areas, and roads leading to and from such areas." |

- Re-Numbered Section 261: To delete “Unpaved internal roads are private unpaved roads within the facility’s property boundary.”
- Section 301: To change heading “Nonmetallic Mineral Processing Plants-Process Emission Limitations And Controls” to “Crushing And Screening-Process Emission Limitations And Controls.” To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically address combinations of equipment and discrete processes at a plant or facility.
- Section 301.1: To delete “of a nonmetallic mineral processing plant.”
- Section 301.1(a): To delete “Such stack emissions shall be vented to a properly sized fabric filter baghouse.” Section 301.1(a) is addressed in Section 301.2(d). To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically address combinations of equipment and discrete processes at a plant or facility.
- Section 301.1(d): To delete “directly into any screening operation, feed hopper, or crusher.” Truck dumping is addressed in Section 307.1 - under “material handling”. Similar to Section 303.1(b). Enclosed truck dumping is an affected operation - is in Section 301 and would be a stack emission. Any type of stack is addressed by Section 301, Section 302, and Section 303. Active system is in Section 301, Section 302, and Section 303. To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically address combinations of equipment and discrete processes at a plant or facility.
- Section 301.1(e): To add “Opacity observations to determine compliance with this section of this rule shall be conducted in accordance with the techniques specified in Appendix C-Fugitive Dust Test Methods of these rules.”
- Section 301.2: To delete “For crushing and screening facilities, the”, “of a nonmetallic mineral processing plant”, and “all of the following.” To add “The” and “described in Section 301.2(a), Section 301.2(b), and Section 301.2(c) of

this rule or shall implement process controls described in Section 301.2(a) and Section 301.2(d) of this rule.”

Section 301.2(b): To add “the points listed below for crushers, shaker screens, and material transfer points.”

Section 301.2(c): As originally written, Section 301.2 requires owners and operators of “crushing and screening facilities” to “implement” specified process controls, expressly requiring regulated facilities to “permanently mount watering systems” at certain material handling points. Although Section 301.2(b) expressly calls for installation of watering systems, it says nothing about the manner in which the watering systems, once installed, must be operated. To add “Operate watering systems (e.g., spray bars or an equivalent control) on the points listed in Section 301.2(b) of this rule for crushers, shaker screens, and material transfer points, excluding wet plants, to continuously maintain a 4% minimum moisture content. (1) The watering systems shall be maintained in good operating condition, as verified by daily inspections. (2) The owner and/or operator shall investigate and correct any problems before continuing and/or resuming operations. (3) The owner and/or operator shall conduct soil moisture tests as follows: (a) If the owner and/or operator is required to have in place a Fugitive Dust Control Technician according to Section 309 of this rule, then soil moisture tests shall be conducted twice daily in accordance with the test methods described in Section 502 of this rule. (b) If the owner and/or operator is not required to have in place a Fugitive Dust Control Technician according to Section 309 of this rule, then soil moisture tests shall be conducted daily in accordance with the test methods described in Section 502 of this rule. (c) If the owner and/or operator demonstrates that the 4% minimum moisture content is maintained for a minimum of four weeks, then soil moisture tests may be conducted weekly in accordance with the test methods described in Section 502 of this rule. (d) If the owner and/or operator fails to comply with the opacity limitations described in Section 301.1, Section 306.1, or Section 306.2 of this rule and/or if two consecutive soil moisture tests are below 4%, then the owner and/or operator shall conduct soil moisture tests in accordance with Section 301.2(c)(3)(a) or Section 301.2(c)(3)(b) of this rule, as applicable. (e) If the owner and/or operator of a facility complies with both of the following requirements, then the number of sampling points identified in Section 502.3(c)(1) through (3) of this rule may be reduced: (i) A soil moisture test is conducted in accordance with the test

	<p>methods described in Section 502 of this rule at the primary crusher, which indicates that at least a 5% minimum moisture content is maintained; and</p> <p>(ii) A demonstration that complies with Section 502.3(d) of this rule is submitted to and approved by the Control Officer and is complied with in accordance with Section 502.3(d) of this rule. (4) The owner and/or operator may request in a permit application, with explanation, an alternative plan that justifies a minimum moisture content other than 4% and that justifies conducting fewer soil moisture tests as are required. In the request, the owner and/or operator shall submit to the Control Officer documentation regarding a minimum moisture content other than 4%, including, but not limited to, economics, emissions rates, water availability, and technical feasibility. In addition, the owner and/or operator shall demonstrate that the proposed alternative compliance demonstration plan will be equivalent in determining compliance with the soil moisture content requirements. Prior approval from the Control Officer and the Administrator shall be received before implementing the plan. d. Enclose and exhaust the regulated process to a properly sized fabric filter baghouse.”</p>
Section 301.2(d):	To add “Enclose and exhaust the regulated process to a properly sized fabric filter baghouse.” A baghouse is needed with the grain loading standard to meet Section 301.1(a). To match Clark County’s Section 34 language regarding “enclose and exhaust the regulated process to properly sized baghouse”.
Section 302.1:	To delete “of an asphaltic concrete plant.”
Section 302.1(a):	To delete “over a 6-minute period.” To remove “over a 6-minute period” from Sections 302.1(a), Section 302.1(b), and Section 302.2. “Over a 6-minute period” is addressed in test methods section.
Section 302.1(b):	To delete “over a 6-minute period.” from Sections 302.1(a), Section 302.1(b), and Section 302.2. “Over a 6-minute period” is addressed in test methods section.
Section 302.1(c):	To delete “From all cement, lime, and/or fly ash storage silo(s), fugitive dust emissions exceeding 20% opacity” and to add “Fugitive dust emissions exceeding 10% opacity from any affected operation or process source, excluding truck dumping.” Similar to Section 301.1(d) and Section 303.1(b). To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such,

did not specifically address combinations of equipment and discrete processes at a plant or facility.

Section 302.2:

To delete “of an asphaltic concrete plant shall implement all of the following process controls” and to add “shall, from all drum dryers, control and vent exhaust to a properly sized fabric filter baghouse.” Stack emissions are not fugitive emissions - are under process fugitives. Process equipment has process fugitives. Loading a pile is under Section 306. To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically address combinations of equipment and discrete processes at a plant or facility.

Section 302.2(a):

To delete “On all cement, lime, and/or fly-ash storage silo(s), install an operational overflow warning system/device. The system/device shall be designed to alert operator(s) to stop the loading operation when the cement, lime, and/or fly-ash storage silo(s) are reaching a capacity that could adversely impact pollution abatement equipment.” Section 302.2(a) is addressed in Section 303.2(a). To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically address combinations of equipment and discrete processes at a plant or facility.

Section 302.2(b):

To delete “On existing cement, lime, and/or fly-ash storage silo(s), install a properly sized fabric filter baghouse, with an opacity limit of not greater than 5% over a 6-minute period.” Section 302.2(b) is addressed in Section 302.2 and the “5%” is addressed in Section 303.1(a). To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically address combinations of equipment and discrete processes at a plant or facility.

Section 302.2(c):

To delete “On new cement, lime, and/or fly-ash storage silo(s), install a properly sized fabric filter baghouse or equivalent device designed to meet a maximum outlet grain loading of 0.01 gr/dscf, with an opacity limit of not

greater than 5% over a 6-minute period.” Section 302.2(c) is addressed in Section 302.2 and the “5%” is addressed in Section 303.1(a). To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically address combinations of equipment and discrete processes at a plant or facility.

Section 302.2(d): To delete “From all drum dryers, control and vent exhaust to a properly sized fabric filter baghouse, with an opacity limit of not greater than 5% over a 6-minute period.” Section 302.2(d) is addressed in Section 302.2. To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically address combinations of equipment and discrete processes at a plant or facility.

Section 303: To change heading “Concrete Plants And/Or Bagging Operations-Process Emission Limitations And Controls” to “Raw Material Storage And Distribution, Concrete Plants, And/Or Bagging Operations-Process Emission Limitations And Controls.” To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically address combinations of equipment and discrete processes at a plant or facility.

Section 303.1: To delete “of a concrete plant and/or bagging operation.”

Section 303.1(a): To delete “7%” and to add “5%.” Discussion that led to the change: Particle size is an indicator of opacity - not a linear relationship, though. “Process Emission Limitations” should include opacity. “controls” might not include opacity. Delete Section 303.2(b), because it is covered in Section 303.1(a). Asphalt - already mixed - is not a “raw material”. Loading a silo can produce emissions. Silo should have “control” but might not. To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not

specifically address combinations of equipment and discrete processes at a plant or facility.

Section 303.1(b): To delete “directly into any screening operation, feed hopper, or crusher.” Truck dumping is addressed in Section 307.1 - under “material handling”. Similar to Section 303.1(b). Enclosed truck dumping is an affected operation - is in Section 301 and would be a stack emission. Any type of stack is addressed by Section 301, Section 302, and Section 303. Active system is in Section 301, Section 302, and Section 303. To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically address combinations of equipment and discrete processes at a plant or facility.

Section 303.1(c): To delete “Fugitive dust emissions exceeding 20% opacity from truck dumping directly into any screening operation, feed hopper, or crusher.” Truck dumping is addressed in Section 307.1 - under “material handling”. Similar to Section 303.1(b). Enclosed truck dumping is an affected operation - is in Section 301 and would be a stack emission. Any type of stack is addressed by Section 301, Section 302, and Section 303. Active system is in Section 301, Section 302, and Section 303. To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically address combinations of equipment and discrete processes at a plant or facility.

Section 303.2: To delete “of a concrete plant and/or bagging operation.”

Section 303.2(b): To delete “On existing cement, lime, and/or fly-ash storage silo(s), install a properly sized fabric filter baghouse, with an opacity limit of not greater than 5% over a 6-minute period.” Section 303.2(b) is addressed in Section 302.2 and the “5%” is addressed in Section 303.1(a). To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically

address combinations of equipment and discrete processes at a plant or facility.

Section 305: To add “An owner and/or operator of a facility shall provide, properly install and maintain in calibration, in good working order, and in operation, at all times air pollution control equipment required by this rule. When selecting air pollution control equipment required by this rule, the owner and/or operator of a facility may consider the site-specific and/or material-specific conditions and logistics of a facility. When doing so, some air pollution control equipment may be more reasonable to implement than others. Regardless, any air pollution control equipment that is installed must achieve the applicable standard(s) required by this rule, as determined by the corresponding test method(s), as applicable, and must achieve other applicable standard(s) set forth in this rule. The owner and/or operator of a facility may submit a request to the Control Officer and the Administrator for the use of alternative air pollution control equipment. The request shall include the proposed alternative air pollution control equipment, the air pollution control equipment that the alternative would replace, and a detailed statement or report demonstrating that the air pollution control equipment would result in equivalent or better emission control than the equipment prescribed in this rule. Nothing in this rule shall be construed to prevent an owner and/or operator of a facility from making such demonstration. Following a decision by the Control Officer and the Administrator to grant the petition, the facility shall incorporate the alternative air pollution control equipment in any required Operation And Maintenance (O&M) Plan.”

New Section 305.2: To add “Operation And Maintenance (O&M) Plan Requirements For Dust Control Measures: a. An owner and/or operator of a facility shall provide and maintain, readily available on-site at all times, (an) O&M Plan(s) for equipment associated with any process fugitive emissions and fugitive dust control measures (i.e., gravel pads, wheel washers, truck washers, rumble grates, watering systems, and street sweepers) that are implemented to comply with this rule or an air pollution control permit. b. The owner and/or operator of a facility shall comply with all the identified actions and schedules provided in each O&M Plan.”

Section 306.1: To delete “The” and to add “For emissions that are not already regulated by an opacity limit, the.” To delete “Section 502” and to add “Section 503.”

Section 306.3: To delete “and Section 306.2.”

Section 306.3(b):	To delete “Maricopa County Environmental Services Department Air Quality Division” and to add “Maricopa County Air Quality Department.”
Section 306.3(c)(1)(a):	To delete “and Section 306.2.”
Section 306.3(c)(1)(b):	To delete “Maintain a visible crust by applying water” and to add “Before and during active operations, apply water.” To delete “or by implementing another fugitive dust control measure, in sufficient quantities to meet the stabilization standards described in Section 503 and Section 504 of this rule” and to add “to keep the soil visibly moist.”
Section 306.3(c)(2):	To add “inactive.”
Section 306.3(c)(2)(a):	To delete “visible” and to add “soil”. To delete “Section 503 and Section 504” and to add “Section 505.”
Section 306.3(c)(3):	To delete “a” and to add “an inactive.”
Section 306.3(c)(3)(b):	To delete “visible” and to add “soil.” To delete “Section 503 and Section 504: and to add “Section 505.”
Section 306.4:	To delete “internal.”
Section 306.4(a):	To add “For unpaved roads” and “silt content exceeding 6%.”
Section 306.4(b):	To delete “Silt content exceeding 6%” and to add “For unpaved parking and staging areas, silt loading equal to or greater than 0.33 oz/ft ² or silt content exceeding 8%.”
Section 306.5(a):	To add “with an open area or a disturbed surface area on which no activity is occurring (including areas that are temporarily or permanently inactive).” To delete “any open storage pile and material handling or surface soils where support equipment and vehicles operate in association with.” To delete “facility” and to add “area.”
Section 306.5(a)(1):	To delete “visible” and to add “soil.”
Section 306.5(a)(7):	To delete “of the Environmental Protection Agency (EPA).”
Section 306.5(b):	To delete “disturbance” and to add “visibly distinguishable stabilization characteristics.” To delete “each representative surface shall be tested” and to add “the owner and/or operator shall test each representative surface.” To delete “Section 503 and Section 504” and to add “Section 505.” To delete “and shall be included in or eliminated from the total size assessment of disturbed surface area(s) depending upon test method results.”
Section 307:	To delete “of the Environmental Protection Agency (EPA).” To delete “of the EPA.” To add “When engaged in the activities described in Section 301 and Section 307.1 through Section 307.9 of this rule, the owner and/or operator of a facility shall install, maintain, and use fugitive dust control

measures as described in Section 307.1 through Section 307.9 of this rule, as applicable.”

Section 307.1: To delete “in compliance with Section 306.1 and Section 306.5 of this rule.”
To add “Section 306.2.”

Section 307.1(a): To delete “stacking.” Truck dumping is addressed in Section 307.1 - under “material handling”. Similar to Section 303.1(b). Enclosed truck dumping is an affected operation - is in Section 301 and would be a stack emission. Any type of stack is addressed by Section 301, Section 302, and Section 303. Active system is in Section 301, Section 302, and Section 303. To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically address combinations of equipment and discrete processes at a plant or facility.

Section 307.1(b): To delete “stacking.” Truck dumping is addressed in Section 307.1 - under “material handling”. Similar to Section 303.1(b). Enclosed truck dumping is an affected operation - is in Section 301 and would be a stack emission. Any type of stack is addressed by Section 301, Section 302, and Section 303. Active system is in Section 301, Section 302, and Section 303. To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically address combinations of equipment and discrete processes at a plant or facility.

Section 307.1(b)(1): To delete “in compliance with Section 306.1 and Section 306.5 of this rule.”

Section 307.1(b)(2): To delete “in compliance with Section 306.1 and Section 306.5 of this rule.”

Section 307.1(b)(3): To delete “If implementing this fugitive dust control measure, the owner and/or operator of a facility shall also comply with the stabilization standards in Section 306.5 of this rule.”

Section 307.1(b)(4): To delete “If implementing this fugitive dust control measure, the owner and/or operator of a facility shall also comply with the stabilization standards in Section 306.5 of this rule.”

Section 307.1(b)(5): To delete “Meet one of the stabilization standards in Section 306.5 of this rule.”

- Re-Numbered Section 307.1(b)(5): To add “or.” To delete “If implementing this fugitive dust control measure, the owner and/or operator of a facility shall also comply with the stabilization standards in Section 306.5 of this rule.”
- New Section 307.1(b)(6): To add “Cover open storage piles with tarps, plastic, or other material to prevent wind from removing the coverings”.
- Section 307.1(c): To delete “in compliance with Section 306.1 and Section 306.5 of this rule.”
- Section 307.1(d): To delete “in compliance with Section 306.1 and Section 306.5 of this rule.”
- Section 307.2: To delete “stabilize surface soils where loaders, support equipment, and vehicles will operate by implementing one of the following fugitive dust control measures, in compliance with Section 306.4 and/or Section 306.5 of this rule, as applicable.” To add “implement one of the following fugitive dust control measures on areas other than the areas identified in Section 307.3 and Section 307.4 of this rule where loaders, support equipment, and vehicles operate.”
- Section 307.2(a): To delete “Pre-water surface soils.” To add “Apply and maintain water.”
- Section 307.3: To add in heading “That Are Not In Permanent Areas Of A Facility.”
- Section 307.3(a): To delete “in compliance with Section 306.4 of this rule.”
- Section 307.3(b): To delete “implementing one” and to add “it is determined that none.” To delete “is determined to be technically infeasible as obtained/approved in writing by the Control Officer and the Administrator of the Environmental Protection Agency (EPA) and as approved in the Dust Control Plan” and to add “can be technically and feasibly implemented.” To add “Such determination shall be made and approved in writing by the Control Officer and the Administrator and shall be approved in the Dust Control Plan.”
- Section 307.4(a): To delete “internal” and to delete “in the permanent areas of the facility /operation that include entrances, exits, warehouses and maintenance areas, office areas, concrete plant areas, asphaltic plant areas, and parking and staging areas, as approved in the Dust Control Plan.”
- Section 307.4(b): To delete “internal roads subject to Section 307.4(a) of this rule” and to add “paved surfaces or cohesive hard surfaces, except.” To delete “entering and exiting” and to add “driving on roads leading to and from.”
- Section 307.4(c): To delete “Section 307.5” and to add “Section 307.6.” To delete “and that comply with Section 306.5 of this rule.”
- Section 307.4(d): To add “The owner and/or operator of a facility shall pave or install a cohesive hard surface on permanent areas of a facility on which vehicles drive, as approved in the Dust Control Plan.”

- Section 307.6(a)(1): To delete “The rumble grate and wheel washer shall be located no less than 30 feet prior to each exit that leads to a paved public roadway/paved area accessible to the public and that is used by aggregate trucks, mixer trucks, and/or batch trucks. The owner and/or operator of a facility may be allowed to install a rumble grate and wheel washer less than 30 feet prior to each exit, if the owner and/or operator of a facility can demonstrate to the Control Officer by September 30, 2005, that there is not adequate space to install a rumble grate and wheel washer no less than 30 feet prior to each exit and that a rumble grate and wheel washer at a shorter distance will be adequate to prevent trackout” and to add “(a) The rumble grate and wheel washer shall be located no less than 30 feet prior to each exit that leads to a paved public roadway/paved area accessible to the public and that is used by aggregate trucks, mixer trucks, and/or batch trucks. (b) The owner and/or operator of a facility may be allowed to install a rumble grate and wheel washer less than 30 feet prior to each exit if the owner and/or operator of a facility can demonstrate to the Control Officer that there is not adequate space to install a rumble grate and wheel washer no less than 30 feet prior to each exit and that a rumble grate and wheel washer at a shorter distance will be adequate to prevent trackout. (c) A rumble grate shall consist of raised dividers (rails, pipes, or grates) a minimum of three inches tall, six inches apart, and 20 feet long, to allow a vibration to be produced such that dust is shaken off the wheels of a vehicle as the entire circumference of each wheel of the vehicle passes over the rumble grate.”
- Section 307.6(a)(4): To delete “internal.”
- Section 307.6(a)(5): To delete “internal.”
- Section 307.6(b)(1): To delete “The owner and/or operator of a facility may be allowed to install a rumble grate, wheel washer, or truck washer less than 30 feet prior to each exit, if the owner and/or operator of a facility can demonstrate to the Control Officer by September 30, 2005, that there is not adequate space to install a rumble grate, wheel washer, or truck washer no less than 30 feet prior to each exit and that a rumble grate, wheel washer, or truck washer at a shorter distance will be adequate to prevent trackout” and to add “(a) The owner and/or operator of a facility may be allowed to install a rumble grate, wheel washer, or truck washer less than 30 feet prior to each exit if the owner and/or operator of a facility can demonstrate to the Control Officer that there is not adequate space to install a rumble grate, wheel washer, or truck washer no less than 30 feet prior to each exit and that a rumble grate,

wheel washer, or truck washer at a shorter distance will be adequate to prevent trackout. (b) A rumble grate shall consist of raised dividers (rails, pipes, or grates) a minimum of three inches tall, six inches apart, and 20 feet long, to allow a vibration to be produced such that dust is shaken off the wheels of a vehicle as the entire circumference of each wheel of the vehicle passes over the rumble grate.”

- Section 307.6(b)(4): To delete “internal roads.”
- Section 307.6(c)(1): To delete “internal.”
- Section 307.6(c)(2): To delete “internal.”
- Section 307.6(c)(3): To delete “internal.”
- Section 307.6(c)(4): To delete “Section 230” and to add “Section 229.”
- Section 307.6(e): To delete “internal” from heading and to add “Identified In The Dust Control Plan.” To delete “internal” from introductory sentence and to add “identified in the Dust Control Plan for a facility.”

- Section 307.6(e)(1): To delete “internal.”
- Section 307.6(e)(2): To delete “internal” and “as necessary to comply with Section 306 of this rule.”

- Section 307.6(e)(4): To delete “internal.”
- Section 307.7: To add “so as to meet all of the requirements in this rule.”
- Section 307.8: To delete “one of.”
- Section 307.8(a): To delete “internal” and to add “or.”
- Section 307.8(b): To delete “internal” and “or” and to add “and.”
- New Section 308: To add “The owner and/or operator of a facility subject to this rule shall erect and maintain a facility information sign at the main entrance such that members of the public can easily view and read the sign at all times. Such sign shall have a white background, have black block lettering that is at least four inches high, and shall contain at least all of the following information”.

- New Section 308.1: To add “Facility name and permittee’s name.”
- New Section 308.2: To add “Current number of the air quality permit or of authority to operate under a general permit.”
- New Section 308.3: To add “Name and local phone number of person(s) responsible for dust control matters; and.”
- New Section 308.4: To add “Text stating: “Dust complaints? Call Maricopa County Air Quality Department - (Insert the accurate Maricopa County Air Quality Department complaint line telephone number).”

Section 309:	To add “or with five acres or more of disturbed surface area subject to a permit, whichever is greater” and to delete “or his designee.”
Section 309.1:	To add “to have full authority to ensure that fugitive dust control measures are implemented on-site and.”
Section 309.2:	To add “Be trained in accordance with the Comprehensive Dust Control Training Class conducted or approved by the Control Officer, successfully complete, at least once every three years, such Comprehensive Dust Control Training Class, and have a valid dust training certification identification card readily accessible on-site while acting as a Fugitive Dust Control Technician.”
Section 309.4:	To delete “Be available within 30 minutes” and to add “Be on-site at all times during primary dust generating operations related to the purposes for which the permit was obtained.”
Section 309.6:	To add “Be authorized by the owner and/or operator of the facility to ensure that the site superintendent or other designated on-site representative of the owner and/or operator of the facility and water truck and water pull drivers for each site be trained in accordance with the Basic Dust Control Training Class conducted or approved by the Control Officer with jurisdiction over the site and successfully complete, at least once every three years, such Basic Dust Control Training Class.”
New Section 310.1:	To add “At least once every three years, the site superintendent or other designated on-site representative of the permit holder, if present at a site that has more than one acre of disturbed surface area that is subject to a permit issued by the Control Officer requiring control of PM ₁₀ emissions from dust generating operation, shall successfully complete a Basic Dust Control Training Class conducted or approved by the Control Officer.”
New Section 310.2:	To add “At least once every three years, water truck and water-pull drivers shall successfully complete a Basic Dust Control Training Class conducted or approved by the Control Officer.”
New Section 310.3:	To add “All persons having successfully completed training during the 2006 and 2007 calendar years shall be deemed to have satisfied the requirement to successfully complete the Basic Dust Control Training Class, if the training that was completed was conducted or approved by the Control Officer. Completion of the Comprehensive Dust Control Training Class, as required in Section 309.2 of this rule, shall satisfy the requirement of this section of this rule.”

Section 311:	To delete “The owner and/or operator of a facility shall submit, to the Control Officer, a Dust Control Plan that describes all fugitive dust control measures to be implemented, in order to comply with Section 306 and Section 307 of this rule. The Dust Control Plan shall, at a minimum, contain all the information described in Rule 310 (Fugitive Dust) of these rules. All other criteria associated with the Dust Control Plan shall meet the criteria described in Rule 310 (Fugitive Dust) of these rules.”
New Section 311.1:	To add “The owner and/or operator of a facility shall submit, to the Control Officer, a Dust Control Plan that describes all fugitive dust control measures to be implemented, in order to comply with Section 305.2, Section 306, Section 307, and Section 309 of this rule.”
New Section 311.2:	To add “The owner and/or operator of a facility shall submit, to the Control Officer, a Dust Control Plan that describes all equipment associated with any process fugitive emissions to be implemented, in order to comply with Section 301 and Section 305.2 of this rule and that includes all of the information in Section 311.2(a) and Section 311.2(b) of this rule, as applicable. If an alternative plan for conducting required soil moisture tests is approved by the Control Officer, included in a Dust Control Plan, and implemented by the owner and/or operator, as allowed under Section 301.2(c)(6) of this rule, and if the Control Officer determines that such alternative plan included in a Dust Control Plan has been followed, yet fugitive dust emissions still exceed the standards of this rule, then the Control Officer shall issue a written notice to the owner and/or operator explaining such determination. The owner and/or operator shall make written revisions to the Dust Control Plan and shall submit such revised Dust Control Plan to the Control Officer within three working days of receipt of the Control Officer’s written notice, unless such time period is extended by the Control Officer, upon request, for good cause. During the time that such owner and/or operator is preparing revisions to the Dust Control Plan, such owner and/or operator must still comply with all requirements of this rule. a. Documentation for the soil moisture content in order to comply with Section 301.2 of this rule. b. Documentation of soil moisture analysis for each move notice regarding portable sources.”
New Section 311.3:	To add “The Dust Control Plan shall, in addition, contain all the information described in Rule 310-Fugitive Dust From Dust Generating Operations of these rules.”

New Section 311.4:	To add “All other criteria associated with the Dust Control Plan shall meet the criteria described in Rule 310-Fugitive Dust From Dust Generating Operations of these rules.”
New Section 311.5:	To add “The Control Officer shall approve, disapprove, or conditionally approve the Dust Control Plan, in accordance with the criteria used to approve, disapprove or conditionally approve a permit. Failure to comply with the provisions of an approved Dust Control Plan shall be deemed a violation of this rule.”
New Section 311.6:	To add “With each move notice regarding portable sources, the owner and/or operator of a facility shall submit, to the Control Officer, a Dust Control Plan that meets the requirements of this section of this rule.”
New Section 312:	To add “An owner and/or operator of a facility subject to this rule shall be subject to the standards and/or requirements of this rule at all times. Failure to comply with any one of the following requirements shall constitute a violation.”
New Section 312.1:	To add “Process emission limitations and controls described in Section 301, Section 302, and Section 303 of this rule.”
New Section 312.2:	To add “Operation and maintenance (O&M) plan requirements for an emission control system and for dust control measures described in Section 305 of this rule.”
New Section 312.3:	To add “Fugitive dust emission limitations described in Section 306 of this rule.”
New Section 312.4:	To add “Fugitive dust control measures described in Section 307 of this rule.”
New Section 312.5:	To add “Facility information sign requirement described in Section 308 of this rule.”
New Section 312.6:	To add “Fugitive Dust Control Technician requirements described in Section 309 of this rule.”
New Section 312.7:	To add “Basic Dust Control Training Class requirements described in Section 310.”
New Section 312.8:	To add “Dust Control Plan requirements described in Section 311 of this rule.”
New Section 312.9:	To add “Monitoring and recordkeeping requirements described in Section 500 of this rule.”
New Section 312.10:	To add “Any other requirements of this rule.”
Section 401.1:	To delete “Dust Control Plan: When complying with Section 309 of this rule, if a Dust Control Plan is required to be revised, then a revised Dust

- Control Plan shall be submitted to the Control Officer by September 30, 2005 or three months after rule adoption, whichever comes first” and to add “O&M Plan.”
- New Section 401.1(a): To add “The owner and/or operator of an existing facility shall revise/update all O&M Plans by (insert date) or three months after rule adoption, whichever is first.”
- New Section 401.1(b): To add “The Control Officer shall take final action on an O&M Plan revision/update to address the newly amended provisions of this rule within 30 calendar days of the filing of the complete O&M Plan revision/update. The Control Officer shall notify the applicant in writing of his approval or denial.”
- Section 401.2: To delete “Pressure Control System: When complying with Section 303.2(e) of this rule, a pressure control system shall be installed by December 31, 2005 or six months after rule adoption, whichever comes first” and to add “Dust Control Plan.”
- New Section 401.2(a): To add “The owner and/or operator of an existing facility shall revise/update all Dust Control Plans by (insert date) or three months after rule adoption, whichever is first.”
- New Section 401.2(b): To add “The owner and/or operator of a new facility shall submit to the Control Officer a Dust Control Plan at the time such owner and/or operator submits a permit application to the Control Officer.”
- New Section 401.2(c): To add “The Control Officer shall take final action on a Dust Control Plan revision/update to address the newly amended provisions of this rule within 30 calendar days of the filing of the complete Dust Control Plan revision/update. The Control Officer shall notify the applicant in writing of his approval or denial.”
- New Section 401.2(d): To add “The Dust Control Plan or the Dust Control Plan revision/update must be approved by the Control Officer before operations begin.”
- Section 401.3: To delete “Operational Overflow Warning System/Device: When complying with Section 302.2(a) and/or Section 303.2(a) of this rule, an operational overflow warning system/device shall be installed by December 31, 2005 or six months after rule adoption, whichever comes first” and to add “Basic Dust Control Training Class: No later than December 31, 2008, a site superintendent or other designated on-site representative of the permit holder, water truck drivers, and water pull drivers shall have successfully completed the Basic Dust Control Training Class, as described in Section 310 of this rule.”

Section 401.4:	To delete “Fugitive Dust Control Technician: When complying with Section 308 of this rule, a Fugitive Dust Control Technician shall be in place by December 31, 2005 or six months after rule adoption, whichever comes first” and to add “Comprehensive Dust Control Training Class: No later than June 30, 2008, a Fugitive Dust Control Technician shall have successfully completed the Comprehensive Dust Control Training Class, as described in Section 309 of this rule.”
Section 401.5:	To delete “Surface Stabilization Where Support Equipment And Vehicles Operate: When complying with Section 307.2 of this rule, surface stabilization and/or paving shall be completed by December 31, 2005 or six months after rule adoption, whichever comes first.”
Section 401.6:	To delete “Trackout: When complying with Section 307.6 of this rule, a rumble grate, wheel washer, or truck washer shall be installed and a schedule for using PM ₁₀ efficient South Coast Air Quality Management Rule 1186 certified street sweepers shall be in place by January 1, 2006.”
Section 401.7:	To delete “Process Emission Limitations And Controls: When complying with Section 301, Section 302, and/or Section 303 of this rule, process emission limitations shall be complied-with and controls shall be installed by December 31, 2005 or six months after rule adoption, whichever comes first.”
Section 501:	To add in heading “Monitoring”.
Section 501.2(a)(4):	To add “produced per day (cubic yards/day)”, “volume of”, and “(tons/day).”
Section 501.2(a)(5):	To delete “(cubic yards/day)” and to add “ (tons per day).”
New Section 501.2(a)(7):	To add “For facilities that assert to be below the thresholds in Section 307.6(a) and Section 307.6(e)(1) of this rule, number of aggregate trucks, mixer trucks, and/or batch trucks exiting the facility.”
Section 501.2(c)(3):	To add “For watering systems (e.g., spray bars or an equivalent control): (a) Date, time, and location of each moisture sampling point; and (b) Results of moisture testing.”
Section 501.3:	To delete “ECS.”
Section 501.3(a):	To add heading “For Any ECS, Any Other Emission Processing Equipment, And Any ECS Monitoring Devices That Are Used Pursuant To This Rule Or To An Air Pollution Control Permit.”
Section 501.3(b):	To add “For Equipment Associated With Any Process Fugitive Emissions And Any Fugitive Dust Control Measures That Are Implemented To Comply With This Rule Or To An Air Pollution Control Permit: (1) A

written record of self-inspection on each day that a facility is actively operating. Self-inspection records shall include daily inspections or in compliance with O&M Plan requirements, whichever is more frequent; (2) Maintenance of street sweepers; and (3) Maintenance of trackout control devices, gravel pads, wheel washers, and truck washers.”

- Section 501.4: To delete “An owner and/or operator of a facility shall compile, maintain, and retain records as described in Rule 310-Fugitive Dust of these rules” and to add “An owner and/or operator of a facility shall compile, maintain, and retain a written record of self-inspection of all fugitive dust control measures implemented, in order to comply with the Dust Control Plan, on each day that the facility is actively operating. Self-inspection records shall include information as described in Rule 310-Fugitive Dust From Dust Generating Operations of these rules.”
- New Section 501.5: To add “Basic Dust Control Training Class Records: An owner and/or operator of a facility shall compile, maintain, and retain a written record for each employee subject to Section 310 of this rule. Such written records shall include the name of the employee, the date of the Basic Dust Control Training Class that such employee successfully completed, and the name of the agency/representative who conducted such class.”
- Section 502: To delete “40 Part 60, Appendix A Test Methods Adopted By Reference” and to add “For Process Emissions And Controls.” To add “Compliance determinations for activities regulated by Sections 301, 302, and/or 303 of this rule shall be made according to the.” To delete “the.” To add “Such subparts of CFR Part 60, Appendix A, adopted as of July 1, 2004.” To delete “Maricopa County Environmental Services Department” and to add “Maricopa County Air Quality Department.”
- Section 502.2: To delete in heading “Determination” and to add “Observations.” To delete “Opacity observations to measure the opacity of visible emissions shall be conducted in accordance with the test methods described in Appendix C (Fugitive Dust Test Methods) of these rules” and to add “Opacity observations to measure visible emissions from activities regulated by Sections 301, 302, and/or 303 of this rule shall be conducted in accordance with the techniques specified in EPA Reference Method 203B (Visual Determination Of Opacity Of Emissions From Stationary Sources For Time-Exception Regulations). Emissions shall not exceed the applicable opacity standards described in Section 301, Section 302, and Section 303 of

this rule for a period aggregating more than three minutes in any 60-minute period.”

New Section 502.3:

To add “Soil Moisture Testing For Watering Systems: a. If twice daily moisture sampling is required, such sampling shall be conducted within one hour of startup and again at 3 pm or within one hour prior to daily shutdown but no less frequently than once every 8-hour period.. b. If daily moisture sampling is required, such sampling shall be conducted within one hour after startup. c. Moisture testing shall be conducted on all crushers, shaker screens, and material transfer points (excluding wet plants). Unless prior approval from the Control Officer is granted, moisture testing shall be conducted at the following sample points: (1) Within 10 feet from the point where crushed aggregate material is placed on the discharge belt conveyor from the crusher; (2) Within 10 feet from the point where screened aggregate material is placed on the conveyor; and (3) From each stacker point. d. The number of sampling points identified in Section 502.3(c)(1) through (3) of this rule may be reduced, if the owner and/or operator of a facility complies with all of the following requirements: (1) A 5% minimum moisture content, as demonstrated by a soil moisture test conducted in accordance with the test methods described in Section 502 of this rule, is maintained at the primary crusher; (2) A minimum of 20 soil moisture samples are taken at all of the points identified in Section 502.3(c) of this rule; (3) A 4% minimum moisture content, as demonstrated by a soil moisture test conducted in accordance with the test methods described in Section 502 of this rule and as demonstrated by the soil moisture samples required by Section 502.3(d)(2) of this rule, is maintained at all of the points identified in Section 502.3(c) of this rule; and (4) A written request is submitted to and approved by the Control Officer to revise/modify the Dust Control Plan to reflect the change in moisture content and the reduced number of sampling points according to the demonstration made by the owner and/or operator of a facility according to this section of this rule. e. Moisture testing is not required on a crusher and/or screen plant equipped with a baghouse or fabric filter, electrostatic precipitator, or wet scrubber, excluding wet spray bars, for control of particulate matter. f. Moisture testing shall include all aggregate material less than 0.25 inch in diameter. g. Moisture testing shall be conducted in accordance with the requirements of American Society For Testing And Materials C566-97 (2004) “Standard

Test Method For Total Evaporable Moisture Content Of Aggregate By Drying” with the exception that smaller sample portions may be used.”

Section 503: To add “Compliance Determination For Emissions And Controls That Are Regulated By Section 304 And/Or Section 306 Of This Rule: To determine compliance with the fugitive dust emission limitations described in Section 304 and/or Section 306 of this rule, opacity observations shall be conducted in accordance with the techniques specified in Appendix C (Fugitive Dust Test Methods) of these rules.”

Re-Numbered Section 504.1: To delete “D2216-98” and to add “D2216-05.” To delete “1998” and to add “2005.”

Re-Numbered Section 504.2: To delete “D1557-91 (1998)” and to add “D1557-02e1.” To delete “1998” and to add “2002.”

Re-Numbered Section 505.1: To add “(not to exceed 6%)” and “(not to exceed 8%).”

Re-Numbered Section 505.2: To delete “visible” and to add “soil.” To delete “/Steel Ball”. To delete “visible” and to add “soil.”

Re-Numbered Section 505.8: To delete “of the EPA.”

6. Demonstration of compliance with A.R.S. § 49-112:

Under ARS § 49-479(C), a county may not adopt a rule or ordinance that is more stringent than the rules adopted by the Director of the Arizona Department of Environmental Quality (ADEQ) for similar sources unless it demonstrates compliance with the requirements of ARS § 49-112.

ARS § 49-112 (A):

When authorized by law, a county may adopt a rule, ordinance, or other regulation that is more stringent than or in addition to a provision of this title or rule adopted by the director or any board or commission authorized to adopt rules pursuant to this title if all the following conditions are met:

1. The rule, ordinance or other regulation is necessary to address a peculiar local condition;
2. There is credible evidence that the rule, ordinance or other regulation is either:
 - (a) Necessary to prevent a significant threat to public health or the environment that results from a peculiar local condition and is technically and economically feasible.
 - (b) Required under a federal statute or regulation, or authorized pursuant to an intergovernmental agreement with the federal government to enforce federal statutes or regulations if the county rule, ordinance or other regulation is equivalent to federal statutes or regulations.

The MCAQD is proposing to revise Rule 316 in order to address a peculiar local condition: EPA’s finding that the Phoenix Nonattainment Area did not attain the 24-hour PM₁₀ standard by the deadline mandated in the Clean Air Act (CAA), December 31, 2006. (72 FR 31183, June 6, 2007). The Phoenix

Nonattainment Area is the only nonattainment area designated serious for PM₁₀ in Arizona. Consequently stronger regulations must be adopted in this area to address a serious health threat. Under Section 189(d) of the CAA, serious PM₁₀ nonattainment areas that fail to attain are required to submit within 12 months of the applicable attainment date, “plan revisions which provide for attainment of the PM₁₀ air quality standard and, from the date of such submission until attainment, for an annual reduction in PM₁₀ or PM₁₀ precursor emissions within the area of not less than 5 percent of the amount of such emissions as reported in the most recent inventory prepared for such area.” In accordance with the CAA section 179(d)(3), the attainment deadline applicable to an area that misses the serious area attainment date is as soon as practicable. The region needs to submit to a Five Percent Plan for PM₁₀ by December 31, 2007. The Phoenix Nonattainment Area is one of three areas in the entire country for which EPA has issued a finding that Section 189(d) has been triggered. Because of this, the revision complies with A.R.S. § 49-112 (A)(1) and A.R.S. § 49-112 (A) (2).

In addition, several of the proposed revisions are required to by ARS § 49-474.01(A)(5, 6 and 11), ARS §§ 49-474.05 and 49-474.06 recently enacted in Senate Bill 1552. Therefore, a demonstration of compliance with ARS § 49-112 as required by the County’s general grant of rulemaking and ordinance authority in ARS § 49-479 does not apply to those proposed rule provisions.

7. A reference to any study relevant to the rule that the agency reviewed and either proposes to rely on in its evaluation of or justification for the rule, where the public may obtain or review each study, all data underlying each study, and any analysis of each study and other supporting material:

Not applicable

8. A showing of good cause why the rule is necessary to promote a statewide interest if the rule will diminish a previous grant of authority of a political subdivision:

Not applicable

9. The preliminary summary of the economic, small business, and consumer impact:

9.1 Summary

The Maricopa County Air Quality Department (MCAQD) is proposing revisions to Rule 316. As required by ARS § 41-1055, this economic, small business and consumer impact statement includes a discussion of the persons most likely to be impacted by the proposed rule, along with a cost-benefit analysis of the proposed rule’s probable impact on the MCAQD as the implementing agency and other public agencies, other political subdivisions of the state, and businesses affected by the proposed rulemaking. Where data are unavailable or highly uncertain, this statement discusses the limitations of

the data, the methods used to develop qualitative and/or quantitative estimates, and attempts to characterize all probable impacts in qualitative terms.

To submit or request additional data on the information included in the economic, small business and consumer impact statement, please contact:

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9.2. Identification of the Proposed Rulemaking

Each proposed change to Rule 316 is described in detail under Item 5 above. While some changes are primarily administrative in nature or designed to clarify existing County air quality rules, a subset of the proposed rule changes have been deemed to have potentially significant economic impacts, and are thus explicitly addressed in this Economic Impact Statement (EIS). These rule changes and the relevant sections include:

- Required control measure options for crushing and screening operations: Rule 316, § 301.2
- Addition of operation and maintenance (O & M) plan requirements for dust control measures: Rule 316, § 305.2
- 20% opacity for a period aggregating more than three minutes in any 60-minute period: Rule 316, § 306.1
- Requirement for facility information sign: Rule 316, § 308
- Dust control training classes: Rule 316, § 310

9.3 Entities Expected To Be Affected By, Bear The Costs Of, Or Directly Benefit From The Proposed Rule Making

Entities directly impacted by this rulemaking include certain permitted sources, pollution control vendors, contractors, consultants, lawyers, the County, private persons and consumers. With the revisions to Rule 316, Rule 316 requires compliance with emission limitations and the implementation of process controls and fugitive dust control measures for nonmetallic mineral processing plants, asphaltic concrete plants, and concrete plants and/or bagging operations. An estimated 144 facilities in these industries are regulated by Maricopa County and approximately 150 portable facilities that may operate in Maricopa County are regulated by the ADEQ. Nonmetallic mineral processing plants and/or rock product plants can be classified into the following categories:

- Construction Sand And Gravel

- Industrial Sand And Gravel
- Concrete Batching
- Hot Mix Asphalt
- Batch Mix
- Parallel Flow Drum Mix
- Counterflow Drum Mix

9.4 Cost-Benefit Analysis

9.4.1 The probable costs and benefits to the implementing agency and other agencies directly affected by the implementation and enforcement of the proposed rule making

Rule 316, § 301.2: Required control measure options for crushing and screening process emissions: Maricopa County and ADEQ will incur the additional costs associated with the review of the revised dust control plans that incorporate the new moisture standard and sampling frequency as a result of modifying the required control measures for crushing and screening process emissions. 51 out of the 144 Maricopa County sources include crushing or screening. Assuming ADEQ has a similar percent, another 53 sources may have to revise their dust control plans. The County estimates that each review will take approximately 3 hours @ \$27.50 per hour resulting in a total cost of \$8580. No other agencies will be affected by this rule.

Rule 316, § 305.2: Addition of operation and maintenance (O&M) plan requirements for dust control measures: Maricopa County and ADEQ will incur additional costs as a result of the change in the existing rule requiring owners/operators to revise their O&M Plan and incorporate the O&M Plan into the Dust Control Plan already required under this rule. The costs for 104 facilities were estimated in the paragraph above. The review of the revised plans for the remaining estimated 190 sources will total an additional \$15,675. No other agencies will be affected by this rule.

Rule 316, § 306.1: 20% opacity for a period aggregating more than three minutes in any 60-minute period: Maricopa County and ADEQ will not incur any additional costs associated with the use of the time-exception form of the opacity standard.

Rule 316, § 308 Requirement for facility information sign: Maricopa County and ADEQ will not incur any additional costs associated with the rule requirement for an owner/operator to install a facility information sign.

Rule 316, § 310 Basic dust control training classes: Maricopa County will hire four additional FTEs to coordinate and conduct dust control training. Annual costs associated with the four additional FTEs, database maintenance, training materials, and room rental are estimated to be \$382,000. One-time

costs are estimated to be \$460,000 for database development, equipment costs, and training materials. MCAQD estimates that approximately 10.7% of these costs will be allocated to the facilities and personnel subject to this rulemaking.

9.4.2 Probable Costs And Benefits To Other Political Subdivisions of the State

It is assumed that the only potential impact on other agencies and other political subdivisions of the state would be in a limited number of instances where these entities are themselves permit holders for activities regulated under Rule 316. As this occurs rather infrequently and these permits comprise only a small fraction of all regulated activity under Rule 316, it is anticipated that compliance with Rule 316 will impose no significant economic impact on any other agency or political subdivision of the state.

9.4.3 Probable Costs And Benefits To Businesses Directly Affected By The Proposed Rulemaking

Rule 316, § 301.2: Required control measure options for crushing and screening process emissions: Owners/Operators regulated by Rule 316 with process emissions from crushing and screening operations will be required to pay for any increased cost associated with implementing one of the two possible control measure options provided under the rule revision as outlined above. There are no additional costs associated with the requirements of § 301.2(a) and § 301.2(b), since these requirements are currently required under the existing rule. The only cost increases are associated with one of the control measure options that requires operating watering systems to continuously meet soil moisture requirements and soil moisture testing under § 301.2(c) and the second control measure option that requires owners to enclose and exhaust the regulated process to a properly sized fabric filter baghouse under § 301.2(d). Available cost data are limited, but some example costs are discussed below. The baghouse system option was added in response to stakeholder comments in order to increase flexibility in the rule.

The total annual cost to install an 8000 cubic feet per minute baghouse used to control crushing emissions is estimated to be \$77,000 (Justice & Associates, Inc., 2007). The cited costs were based on a 1 year project life for a temporary construction project. The baghouse cost includes the purchase price, freight, taxes, insurance, engineering, enclosures, duct work, and compressor. Costs will vary depending on the required size which will be based on airflow throughput requirements.

The total annual cost of continuous watering to maintain soil moisture content is estimated to be \$111,000 (Justice & Associates, Inc., 2007). Each source will be required to sample an estimated 2 to 10 or more sample points. The proposed rule does include an option to reduce both the number of sample points after 20 samples and the frequency of sampling after sampling for 4 weeks. One-time only expenses will include the installation of sampling platforms and guards and the purchase of a scoop, scale and microwave. Assuming that each sample takes approximately 0.5 hours to take and

process and a personnel cost of \$35.00 per hour, each sample will cost \$17.50. The per facility cost are estimated to range from \$35 to \$210 per test required. Per day costs are estimated to range from \$35 to \$420. The County has not received specific information on the labor costs and time necessary to better quantify the moisture testing impacts and solicits additional information at this time.

Rule 316, § 305.2: Addition of operation and maintenance (O&M) plan requirements for dust control measures: Owners/operators of facilities under Rule 316 will be required to pay for the one-time costs associated with developing an O&M Plan and incorporating the O&M Plan into the Dust Control Plan already required under this rule. There is insufficient data at this time to delineate the labor time required to develop the O&M Plan.

Rule 316, § 306.1: 20% opacity for a period aggregating more than three minutes in any 60-minute period: The new data reduction methods for the existing opacity standard will require that owners/operators more closely monitor their activities, processes, and controls to ensure proper operation at all times. As described in the explanation in #5 above, a number of western serious PM₁₀ nonattainment areas administer a time-exception data reduction methodology for their visible opacity limits. Furthermore, an EPA study (Office of Air Quality Planning and Standards, “Opacity Regulations: A Summary of State Regulations and Rulemaking Status”, Special Report February 1983) contains information indicating that the state or a local agency in 28 states has adopted a time-exception form of data reduction for their opacity standard. Those areas contain many similar sources that comply with time-exception data reduction methods for visible emission standards and are in the same business as sources in Maricopa County. To date no source has provided examples of the activities, processes or controls that may need to be modified to comply with this new requirement. The MCAQD is asking for information or examples that would allow for more than a qualitative analysis of the economic impact of the proposed standard.

Rule 316, § 308: Requirement for facility information sign: Owners/operators subject to this rule will bear the costs of installing the required facility information sign. Since the lettering on the sign is only required to be 4 inches high, costs are expected to be minimal.

Rule 316, § 310 Basic dust control training classes: It is anticipated that the MCAQD fee for the basic dust control training class will be \$25. Each attendee will spend 4 hours in class, plus an estimated 1.5 hours for travel time and recordkeeping. Assuming an average wage of \$24.23/hour, the indirect costs of registering under this program would be \$133.27, for a total cost per registrant of \$158.27, and a total cost on businesses of all sizes impacted by this rule of \$1,635,879.

Rule 316, § 309.2: Comprehensive dust control training class: It is anticipated that the MCAQD fee for the comprehensive dust control training class will be \$50. Each attendee will spend 8 hours in class, plus an estimated 1.5 hours for travel time and recordkeeping. Assuming an average wage of \$29.27/hour, the indirect costs of registering under this program would be \$278.07, for a total cost per registrant of \$328.07, and a total cost on businesses of all sizes impacted by this rule of \$654,162.

9.5 Impact On Private And Public Employment

Estimates of increased workloads and anticipated additional staff (FTE's) required for the MCAQD to design, implement, and conduct the proposed programs associated with the proposed revisions to Rule 316 have been quantified individually in section 9.4.1 above. Since the MCAQD will be the implementing entity for such proposed programs, no other significant impacts on public-sector employment of other agencies or political subdivisions of the state are anticipated. The potential financial impacts on permit holders (businesses and individuals), on a per-case basis, and cumulative impacts on all permit holders, have been described and quantified, insofar as possible, in section 9.4.3 above.

Rule 316, § 301.2: Required control measure options for crushing and screening process emissions:

As discussed above, owners/operators of facilities under Rule 316 with process emissions from crushing and screening operations will be required to pay for cost increases associated with implementing one of the two possible control measure options provided under the rule revision as outlined above. The businesses directly affected by the proposed Rule 316 revision may be forced to offset any additional costs incurred in order to comply with the proposed rules. Businesses may attempt to offset these additional costs by: (1) increasing prices of goods and services which may adversely affect sales; (2) reducing employee pay rates, and/or (3) eliminating jobs.

Based on the cost data available, the MCAQD does not have sufficient data at this time to quantitatively evaluate potential employment impacts for businesses impacted by the proposed Rule 316 revision.

Rule 316, § 305.2: Addition of operation and maintenance (O&M) plan requirements for dust control measures: Owners/operators of facilities under Rule 316 will be required to pay for the one-time costs associated with developing an O&M plan and incorporating the O&M plan into the Dust Control Plan already required under this rule. Costs incurred by businesses under the proposed rule change are not expected to have any effect on employment.

Rule 316, § 306.1: 20% opacity for a period aggregating more than three minutes in any 60-minute period: The County has not yet received process specific examples affected by this revision in data

reduction methodology and does not believe that employment will be affected by the proposed rule change.

Rule 316, § 308: Requirement for facility information sign: Since costs for the installation of a facility information sign are expected to be minimal, employment will not be affected at businesses under the proposed rule change.

Rule 316, §§ 309.2 and 310: Basic and comprehensive dust control training class: It is anticipated that the MCAQD, as the implementing agency, will require approximately 2.2 additional FTE's to oversee and implement these programs. The MCAQD is currently in the planning stages to certify other third-party entities to conduct these training programs, so some additional private-sector employment impact is likely, but this impact cannot yet be quantified precisely.

9.6 Probable Impact Of The Proposed Rule Making On Small Businesses

For all proposed rule changes discussed in this analysis, a description of affected entities of all sizes is contained in Section 9.3 above. Due to constraints in time, available resources, and readily accessible current data, no reliable estimates on the separate impact on small businesses have yet been developed. Several rule changes such as the frequency of moisture testing and the requirement to have a dust control coordinator onsite at all times include size cut-offs. As a result the following general conclusion is preliminary. For the reasons stated in item #5 of the preamble, and due to the inherent difficulty in identifying all sources which are small businesses, including the possibility that such status may change from year to year, the County has determined that it is not feasible to apply a separate standard to small businesses. The County does employ an ombudsman in the Business Resource Division, to whom small businesses may address their issues with regard to compliance with the rule.

9.6.1 Alternative Methods Considered To Reduce Impact On Small Business

Rule 316, §§309.2 and 310: Basic and comprehensive dust control training programs: The proposed rulemaking imposes training requirements for site superintendents or other on-site representatives for facilities with greater than 1 acre (43,560 sq. ft.) of disturbed surface area that are subject to a permit by the Control Officer. The only qualitative assessment conducted for business-size relates to the size of a facility's disturbed surface area. Based on this criterion, the financial and administrative burden will be more limited for facilities that do not meet the 1 acre size criteria. No other alternatives have been considered; the parameters of the proposed programs have been prepared to comply with ARS §49-474.05.

9.6.2 Probable Cost And Benefit To Private Persons And Consumers

All proposed changes to Rule 316 are designed to reduce particulate matter emissions with the ultimate goal of protecting the public health and welfare by attaining PM₁₀ and PM_{2.5} National Ambient Air Quality Standards (NAAQS) throughout Maricopa County. A detailed description of the benefits for the public at large are excerpted from a cost analysis conducted by ADEQ (2004) and is provided below.

Improvement in air quality will generate cost-saving benefits by avoiding adverse-health effects, such as emergency room visits, hospital admissions, acute pediatric bronchitis, chronic adult bronchitis, acute respiratory symptom days, and even premature death. Potential benefits arising from a reduction in particulate matter and other pollutants emitted into the atmosphere can be inferred from data associated with the reduction of any airborne particulate matter (PM).

Some of health effects of human exposure to PM can be quantified while others cannot. Quantified adverse-health effects include: mortality, bronchitis (chronic and acute), new asthma cases, hospital admissions (respiratory and cardiovascular), emergency room visits for asthma, lower and upper respiratory illness, shortness of breath, respiratory symptoms, minor restricted activity days, days of work loss, moderate or worse asthma status of asthmatics. Unquantifiable adverse-health effects include: neonatal mortality, changes in pulmonary function, chronic respiratory diseases (other than chronic bronchitis), morphological changes, altered host defense mechanisms, cancer, and non-asthma respiratory emergency room visits (U.S. EPA, 1999a).

Epidemiological evidence shows that particulates have negative health impacts in a variety of ways, including: increased mortality and morbidity; more frequent hospital admissions, emergency room and clinician visits; increased need and demand for medication; and lost time from work and school. There is also increasing evidence that ambient air pollution can precipitate acute cardiac episodes, such as angina pectoris, cardiac arrhythmia, and myocardial infarction, although the majority of PM-related deaths are attributed to cardiovascular disease (The U.S. EPA's PM Health Effects Research Center Program, prepared by PM Centers Program staff, January 2002).

New evidence also links exposure to ambient PM concentrations to airway inflammation that in turn produces systemic effects, such as acute phase response with increased blood viscosity and coagulability, as well as increased risk of myocardial infarction in patients with coronary artery disease. Chronic effects of repeated airway inflammation may also cause airway remodeling, leading to irreversible lung disease. Individuals with asthma and chronic obstructive pulmonary disease may be at even higher risk from repeated exposure to particulates, according to the U.S. EPA's PM Health Effects Research Center Program.

The Health Effects Institute confirmed the existence of a link between particulate matter and human disease and death (premature mortality). The data revealed that long-term average mortality rates, even after accounting for the effects of other health effects, were 17-26% higher in cities with higher levels of airborne PM (Health Effects of Particulate Air Pollution: What Does The Science Say Hearing before the Committee on Science, House of Representatives, 107th Congress of the U.S., second session, May 8, 2002). Data further reveal that every 10-microgram increase in fine particulates per cubic meter produces a 6% increase in the risk of death by cardiopulmonary disease, and an 8% increase for lung cancer. Even very low concentrations of PM can increase the risk of early death, particularly in elderly populations with preexisting cardiopulmonary disease (STAPPA/ALAPCO, 1996).

In 2002 alone, chronic obstructive pulmonary disease cost the U.S. more than \$32 million, a sum not including costs attributable to asthma (American Lung Association, 2003). In Arizona, deaths attributable to asthma have equaled or exceeded national rates from 1991-1998. In 1998, some 316,200 Arizonans suffered breathing discomfort or asthma related stress (ADHS, 2002).

The MCAQD expects that a reduction in PM potentially will create commensurate cost-saving benefits to the general public by contributing towards reducing these emissions-related health problems. The proposed Maricopa County rulemaking will help improve the general quality of life for the citizens of Maricopa County, particularly those residing near sources that have reduced PM emissions and other air pollutants associated with the manufacturing processes.

Health benefits can be expressed as avoided cases of PM related-health effects and assigned a dollar value. EPA used an average estimate of value for each adverse-health effect of criteria air pollutants. Table 1 contains valuation estimates from the literature reported in dollars per case reduced. For example, the table shows a value of \$401,000 (in 2006 dollars) per case of chronic bronchitis avoided.

Table 1. Monetized Adverse-Health Effects Avoided From Exposure to PM

Adverse Health Effect *	Per Case Valuation (1990 dollars)	Per Case Valuation (2006 dollars)
Mortality	\$4,800,000	\$7,403,800
Chronic bronchitis	\$260,000	\$401,000
Hospital admissions for respiratory conditions	\$6,900	\$10,640
Hospital admissions for cardiovascular conditions	\$9,500	\$14,650
Emergency room visits for asthma	\$194	\$299
Acute Bronchitis	\$45	\$69
Asthma attack	\$32	\$49

Moderate or worse asthma day	\$32	\$49
Acute respiratory symptom	\$18	\$28
Upper respiratory symptom	\$19	\$29
Lower respiratory symptom	\$12	\$19
Shortness of breath, chest tightness, or wheeze	\$5	\$8
Work loss day	\$83	\$128
Mild restricted activity day	\$38	\$59

* An individual's health status and age prior to exposure impacts his/her susceptibility. At risk persons include those who have suffered a stroke or have cardiovascular disease. Some age cohorts are more susceptible to air pollution than others, i.e., children and elderly.

Source: Derived from U.S. EPA, 1999b. According to EPA, cost values of these illnesses tend to underestimate the true value of avoiding these adverse-health effects. Mean estimates of willingness-to-pay (WTP) were used to derive values, unless WTP values were not available, in which case, the cost of treating or mitigating the effects was used. The value of an avoided asthma attack, for example, would be a person's WTP to avoid that symptom.

Mortality in Table 1 actually refers to statistical deaths, or inferred deaths due to premature mortality. A small decline in the risk for premature death will have a certain monetary value for individuals, and as such, they will be willing to pay a certain amount to avoid premature death. For instance, if PM emissions are reduced so that the mortality risk on the exposed population is decreased by one in one-hundred thousand, then among 100,000 persons, one less person will be expected to die prematurely. If the average willingness-to-pay (WTP) per person for such a risk reduction were \$75, the implied value of the statistical premature death avoided would be \$7.5 million.

9.7 Probable Effect On County and State Revenues

If Arizona is unable to submit a plan that demonstrates a Five Percent per year reduction and demonstrates attainment at the monitors based on implemented control measures such as this rule, EPA will be required to make a nondiscretionary finding that Arizona has failed to submit and approvable plan. If the County and Arizona fail to correct the identified deficiencies within the timeframe specified in the notice, the sanctions under § 179 of the Clean Air Act (CAA) will be imposed. Sanctions include loss of highway funds and stricter emission offset requirements for major sources. In addition, under § 110(c) of the CAA, EPA would then need to promulgate a Federal Implementation Plan no later than 24 months after the date of publication of the notice.

Some of the proposed rule changes would result in increased fee revenue to the MCAQD. The MCAQD anticipates revising its fee schedule (under a separate rulemaking) in order to recoup the costs of designing, implementing, and administering new programs contained within the present rulemaking. A list of the proposed programs, along with estimates of proposed user fees and overall revenue projections, is as follows:

Program	Est'd Users	Fee/User	Estimated Annual Revenue
Basic Dust Control Training Class	10,336	\$25	\$258,400
Comprehensive Dust Control Training Class	1,994	\$50	\$99,700

No other significant impact on state or County revenues from the present rulemaking is anticipated.

9.8 Alternative Methods Considered To Achieve The Purpose Of The Proposed Rulemaking
Rule 316, §§309.2 and 310: Basic and comprehensive dust control training classes: No alternatives were considered; the parameters of the proposed programs have been prepared to comply with ARS §49-474.05.

9.9 Data Availability And Limitations Of Assumptions

The present draft of this economic impact statement was developed in accordance with ARS §41-1055 to assess the potential economic impacts of the proposed changes to Rule 316. Sources of data and any assumptions used to develop these estimates have been included in the discussion of these analyses; and where data are lacking or uncertain, this has been noted wherever possible. The MCAQD welcomes all interested parties to provide additional relevant information and documentation on the anticipated costs and benefits resulting from compliance with the proposed rule(s).

10. Name and address of department personnel with whom persons may communicate regarding the accuracy of the economic, small business, and consumer impact statement:

Name: Johanna M. Kuspert or Jo Crumbaker
Maricopa County Air Quality Department
Address: 1001 N. Central Ave, Suite 595
Phoenix, AZ 85004
Telephone: 602-506-6710 or 602-506-6705
Fax Number: 602-506-6179
Email Address: jkuspert@mail.maricopa.gov or jcrumbak@mail.maricopa.gov

11. The time, place and nature of the proceedings for the amendment of the rule:

Written comments will be accepted if received between the date of this publication and December 11, 2007, 5:00 p.m. Written comments may be mailed or hand delivered to the Maricopa County Air Quality Department (see item 4 above). Written comments received during the comment period will be considered formal comments to the proposed rules and will be responded to in the Notice of Final Rulemaking.

An oral proceeding will be held on December 10, 2007 at 2:30 pm at the Maricopa County Flood Control District, 2801 West Durango, Operations Building. All comments made at this oral proceeding will be considered formal comments and will be recorded and transcribed. All formal comments will be addressed in the Notice of Final Rulemaking.

12. Any other matters prescribed by the statute that are applicable to the specific agency or to any specific rule or class of rules:

Not applicable

13. Incorporations by reference and their location in the rules:

<u>Incorporation By Reference</u>	<u>Location</u>
EPA Method 9	Rule 316, Section 309.5
EPA Reference Methods 1 - 5	Rule 316, Section 502.1
EPA Reference Method 203B	Rule 316, Section 502.2
South Coast Air Quality Management	Rule 316, Section 506
Rule 1186 Certification Standards	
Appendix C-Fugitive Dust Test Methods	Rule 316, Section 301.1(e)
	Rule 316, Section 306.1
	Rule 316, Section 306.3(c)(1)
	Rule 316, Section 306.3(c)(2)
	Rule 316, Section 306.3(c)(3)
	Rule 316, Section 306.4
	Rule 316, Section 306.5(b)
	Rule 316, Section 503
	Rule 316, Section 505
ASTM Method D2216-05	Rule 316, Section 504.1
ASTM Method D1557-02e1	Rule 316, Section 504.2

14. The full text of the rule follows:

REGULATION III - CONTROL OF AIR CONTAMINANTS

RULE 316

NONMETALLIC MINERAL PROCESSING

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Adopted 07/06/93

Revised 04/21/99

Revised 06/08/05

MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS
REGULATION III - CONTROL OF AIR CONTAMINANTS
RULE 316
NONMETALLIC MINERAL PROCESSING

SECTION 100 - GENERAL

- 101 PURPOSE:** To limit the emission of particulate matter into the ambient air from any nonmetallic mineral processing plant and/or rock product processing plant.
- 102 APPLICABILITY:** The provisions of this rule shall apply to any commercial and/or industrial nonmetallic mineral processing plant and/or rock product processing plant. Compliance with the provisions of this rule shall not relieve any person subject to the requirements of this rule from complying with any other federally enforceable New Source Performance Standards. In such case, the more stringent standard shall apply.

SECTION 200 - DEFINITIONS: See Rule 100 (General Provisions And Definitions) of these rules for definitions of terms that are used but not specifically defined in this rule. For the purpose of this rule, the following definitions shall apply:

- 201 AFFECTED OPERATION -** An operation that processes nonmetallic minerals or that is related to such processing and process sources including, but not limited to, excavating, crushers, grinding mills, screening equipment, conveying systems, elevators, transfer points, bagging operations, storage bins, enclosed truck and railcar loading stations, and truck dumping.
- 202 AGGREGATE TRUCK -** Any truck with an open top used to transport the products of nonmetallic mineral processing plants and/or rock product processing plants.
- 203 APPROVED EMISSION CONTROL SYSTEM -** A system for reducing particulate emissions, consisting of collection and/or control devices which are approved in writing by the Control Officer and are designed and operated in accordance with good engineering practice.

- 204 AREA ACCESSIBLE TO THE PUBLIC** - Any retail parking lot or public roadway that is open to public travel primarily for the purposes unrelated to the dust generating operation.
- 205 ASPHALTIC CONCRETE PLANT/ASPHALT PLANT** - Any facility used to manufacture asphaltic concrete by mixing graded aggregate and asphaltic cements.
- 206 BAGGING OPERATION** - The mechanical process by which bags are filled with nonmetallic minerals.
- 207 BATCH TRUCK** – Any truck that loads and transports products produced by batch.
- 208 BELT CONVEYOR** - A conveying device that transports material from one location to another by means of an endless belt that is carried on a series of idlers and routed around a pulley at each end.
- 209 BERMS AND GUARD RAILS** - A pile or mound of material along an elevated roadway capable of moderating or limiting the force of a vehicle in order to impede the vehicle's passage over the bank of the roadway.
- 210 BULK MATERIAL** - Any material including, but not limited to, earth, rock, silt, sediment, sand, gravel, soil, fill, aggregate less than two inches in length or diameter (i.e., aggregate base course (ABC)), dirt, mud, demolition debris, cotton, trash, cinders, pumice, saw dust, feeds, grains, fertilizers, fluff (from shredders), and dry concrete, that is capable of producing fugitive dust.
- 211 COHESIVE HARD SURFACE** – Any material including, but not limited to, pavement, recycled asphalt mixed with a binder, or a dust suppressant other than water applied and maintained as a roadway surface.
- 212 CONCRETE PLANT** - Any facility used to manufacture concrete by mixing water, aggregate, and cement.
- 213 CONVEYING SYSTEM** - A device for transporting materials from one piece of equipment or location to another location within a facility. Conveying systems include, but are not limited to, feeders, belt conveyers, bucket elevators and pressure control systems.
- 214 CRUSHER** - A machine used to crush any nonmetallic minerals including, but not limited to, the following types: jaw, gyratory, cone, roll, rod mill, hammermill, and impactor.

- 215 DISTURBED SURFACE AREA** - A portion of the earth's surface (or material placed thereupon) which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed native condition, thereby increasing the potential for the emission of fugitive dust.
- 216 DRY MIX CONCRETE PLANT** - Any facility used to manufacture a mixture of aggregate and cements without the addition of water.
- 217 DUST GENERATING OPERATION** - Any activity capable of generating fugitive dust including, but not limited to, land clearing, earthmoving, weed abatement by discing or blading, excavating, construction, demolition, bulk material handling, storage and/or transporting operations, vehicle use and movement, the operation of any outdoor equipment, or unpaved parking lots. For the purpose of this rule, landscape maintenance and playing on or maintaining a field used for nonmotorized sports shall not be considered a dust generating operation. However, landscape maintenance shall not include grading, trenching, or any other mechanized surface disturbing activities performed to establish initial landscapes or to redesign existing landscapes.
- 218 DUST SUPPRESSANT** - Water, hygroscopic material, solution of water and chemical surfactant, foam, non-toxic chemical stabilizer, or any other dust palliative, which is not prohibited for ground surface application by the EPA or the Arizona Department of Environmental Quality (ADEQ), or any applicable law, rule, or regulation, as a treatment material for reducing fugitive dust emissions.
- 219 ENCLOSED TRUCK OR RAILCAR LOADING STATION** - That portion of a nonmetallic mineral processing plant where nonmetallic minerals are loaded by an enclosed conveying system into enclosed trucks or railcars.
- 220 END OF WORK DAY** – The end of a working period that may include one or more work shifts but not later than 8 pm.
- 221 FABRIC FILTER BAGHOUSE** - Tube-shaped filter bags - long small-diameter fabric tubes referred to as 'bags' arranged in parallel flow paths and designed to separate particles and flue gas.
- 222 FREEBOARD** - The vertical distance between the top edge of a cargo container area and the highest point at which the bulk material contacts the sides, front, and back of a cargo container area.

- 223 FUGITIVE DUST CONTROL MEASURE** - A technique, practice, or procedure used to prevent or minimize the generation, emission, entrainment, suspension, and/or airborne transport of fugitive dust.
- 224 FUGITIVE DUST CONTROL TECHNICIAN** - A person with the authority to expeditiously employ sufficient fugitive dust control measures to ensure compliance with Rule 316 of these rules at an active operation.
- 225 FUGITIVE DUST EMISSION** - Particulate matter not collected by a capture system that is entrained in the ambient air and is caused from human and/or natural activities.
- 226 GRINDING MILL** - A machine used for the wet or dry fine crushing of any nonmetallic mineral. Grinding mills include, but are not limited to, the following types: hammer, roller, rod, pebble and ball, and fluid energy. The grinding mill includes the air conveying system, air separator, or air classifier, where such systems are used.
- 227 HAUL/ACCESS ROAD** – Any on-site unpaved road that is used by haul trucks to carry materials from the quarry to different locations within the facility. For the purpose of this definition, haul/access roads are not in permanent areas of a facility.
- 228 HAUL TRUCK** - Any fully or partially open-bodied self-propelled vehicle including any non-motorized attachments, such as but not limited to, trailers or other conveyances that are connected to or propelled by the actual motorized portion of the vehicle used for transporting bulk materials.
- 229 INFREQUENT OPERATIONS** – Operations that have State mine identification, approved reclamation plans and bonding as required by State Mining And Reclamation Act of 1975, and only operate on an average of 52 days per year over the past three years from June 8, 2005.
- 230 MATERIAL DELIVERY TRUCK** – Any truck that loads and transports product to customers.
- 231 MIXER TRUCK** – Any truck that mixes cement and other ingredients in a drum to produce concrete.
- 232 MOTOR VEHICLE** - A self-propelled vehicle for use on the public roads and highways of the State of Arizona and required to be registered under the Arizona State Uniform Motor Vehicle Act, including any non-motorized attachments, such as but not limited to, trailers or other conveyances which are connected to or propelled by the actual motorized portion of the vehicle.

- 233 NEW FACILITY** - A facility subject to this rule that has not been operated by such facility prior to June 8, 2005.
- 234 NONMETALLIC MINERAL** - Any of the following minerals or any mixture of which the majority is any of the following minerals:
- 234.1** Crushed and broken stone, including limestone, dolomite, granite, rhyolite, traprock, sandstone, quartz, quartzite, marl, marble, slate, shale, oil shale, and shell.
 - 234.2** Sand and gravel.
 - 234.3** Clay including kaolin, fireclay, bentonite, fuller's earth, ball clay, and common clay.
 - 234.4** Rock salt.
 - 234.5** Gypsum.
 - 234.6** Sodium compounds including sodium carbonate, sodium chloride, and sodium sulfate.
 - 234.7** Pumice.
 - 234.8** Gilsonite.
 - 234.9** Talc and pyrophyllite.
 - 234.10** Boron including borax, kernite, and colemanite.
 - 234.11** Barite.
 - 234.12** Fluorspar.
 - 234.13** Feldspar.
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 - 234.15** Perlite.
 - 234.16** Vermiculite.
 - 234.17** Mica.
 - 234.18** Kyanite including andalusite, sillimanite, topaz, and dumortierite.
 - 234.19** Coal.
- 235 NONMETALLIC MINERAL PROCESSING PLANT** - Any facility utilizing any combination of equipment or machinery that is used to mine, excavate, separate, combine, crush, or grind any nonmetallic mineral including, but not limited to, lime plants, coal fired power plants, steel mills, asphalt plants, concrete plants, Portland cement plants, raw material storage and distribution, and sand and gravel plants. Rock Product Processing Plants are included in this definition.
- 236 OPEN STORAGE PILE** - Any accumulation of bulk material with a 5% or greater silt content which in any one point attains a height of three feet and ~~covers~~ a total surface area of 150 square feet or more. Silt content shall be assumed to be 5% or greater unless a person can show, by testing in accordance with ~~ASTM Method C136-01~~ ASTM Method C136-06 or other equivalent

method approved in writing by the Control Officer and the Administrator ~~of the Environmental Protection Agency (EPA)~~, that the silt content is less than 5%. For the purpose of this rule, the definition of open storage pile does not include berms and guard rails that are installed to comply with 30 Code Of Federal Regulations (CFR) 56.93000.

- 237 OVERBURDEN OPERATION** – An operation that removes and/or strips soil, rock, or other materials that lie above a natural nonmetallic mineral deposit and/or in-between a natural nonmetallic mineral deposit.
- 238 PARTICULATE MATTER EMISSIONS** - Any and all finely divided solid or liquid materials other than uncombined water released to the ambient air as measured by the applicable state and federal test methods.
- 239 PAVE** - To apply and maintain asphalt, concrete, or other similar material to a roadway surface (i.e., asphaltic concrete, concrete pavement, chip seal, rubberized asphalt, or recycled asphalt mixed with a binder).
- 240 PERMANENT AREAS OF A FACILITY** - Areas that remain in-place for 180 days or more in 12 consecutive months. Permanent areas of a facility include the following areas: entrances, exits, parking areas, office areas, warehouse areas, maintenance areas (not including maintenance areas that are in the quarry or pit), concrete plant areas, asphaltic plant areas, and roads leading to and from such areas.
- ~~240~~241 PORTLAND CEMENT PLANT** - Any facility that manufactures Portland Cement using either a wet or dry process.
- ~~241~~242 PRESSURE CONTROL SYSTEM** - System in which loads are moved in the proper sequence, at the correct time, and at the desired speed through use of valves that control the direction of air flow, regulate actuator speed, and respond to changes in air pressure.
- ~~242~~243 PROCESS** - One or more operations including those using equipment and technology in the production of goods or services or the control of by-products or waste.
- ~~243~~244 PROCESS SOURCE** - The last operation of a process or a distinctly separate process which produces an air contaminant and which is not a pollution abatement operation.

- ~~244~~245 PRODUCTION WORK SHIFT** – An eight hour operating period based on the 24-hour operating schedule.
- ~~245~~246 PUBLIC ROADWAYS** - Any roadways that are open to public travel.
- ~~246~~247 RETURNED PRODUCTS** – Left-over concrete or asphalt products that were not used at a job site and were returned to the facility.
- ~~247~~248 RUMBLE GRATE** – A system where the vehicle is vibrated while traveling over grates with the purpose of removing dust and other debris.
- ~~248~~249 SCREENING OPERATION** - A device that separates material according to its size by passing undersize material through one or more mesh surfaces (screens) in series and retaining oversize material on the mesh surfaces (screens).
- ~~249~~250 SILO** - An elevated storage container with or without a top that releases material thru the bottom.
- ~~250~~251 SILT** - Any aggregate material with a particle size less than 75 micrometers in diameter, which passes through a No. 200 Sieve.
- ~~251~~252 SPILLAGE** - Any quantity of nonmetallic minerals/materials that spill while being processed or after having been processed by an affected operation, where such spilled nonmetallic minerals/materials can generate or cause fugitive dust emissions.
- ~~252~~253 STACK EMISSIONS** - The particulate matter emissions that are released to the atmosphere from a capture system through a building vent, stack or other point source discharge.
- ~~253~~254 STAGING AREA** – A place where aggregate trucks and mixer trucks temporarily queue for their loading or unloading.
- ~~254~~255 TEMPORARY FACILITY** - A facility that occupies a designated site for not more than 180 days in a calendar year.
- ~~255~~256 TRACKOUT** - Any and all bulk materials that adhere to and agglomerate on the surfaces of motor vehicles, haul trucks, and/or equipment (including tires) and that have fallen or been deposited onto a paved area accessible to the public.

- ~~256~~**257** **TRACKOUT CONTROL DEVICE** - A gravel pad, grizzly, wheel washer, rumble grate, paved area, truck washer, or other equivalent trackout control device located at the point of intersection of an unpaved area and a paved area accessible to the public that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of aggregate trucks, haul trucks, and/or motor vehicles that traverse a facility.
- ~~257~~**258** **TRANSFER POINT** - A point in a conveying operation where nonmetallic mineral is transferred from or to a belt conveyor except for transfer to a stockpile.
- ~~258~~**259** **TRUCK DUMPING** - The unloading of nonmetallic minerals from movable vehicles designed to transport nonmetallic minerals from one location to another. Movable vehicles include, but are not limited to, trucks, front end loaders, skip hoists, and railcars.
- ~~259~~**260** **TRUCK WASHER** – A system that is used to wash the entire surface and the tires of a truck.
- ~~260~~**261** **UNPAVED ROAD** – Any roads, equipment paths, or travel ways that are not covered by typical roadway materials. Public unpaved roads are any unpaved roadway owned by Federal, State, county, municipal, or governmental or quasigovernmental agencies. Private unpaved roads are all other unpaved roadways not defined as public. ~~Unpaved internal roads are private unpaved roads within the facility's property boundary.~~
- ~~261~~**262** **VENT** - An opening through which there is mechanically or naturally induced air flow for the purpose of exhausting air carrying particulate matter.
- ~~262~~**263** **WHEEL WASHER** – A system that is capable of washing the entire circumference of each wheel of the vehicle.
- ~~263~~**264** **WIND EVENT** - When the 60-minute average wind speed is greater than 25 miles per hour.

SECTION 300 - STANDARDS

- 301** ~~**NONMETALLIC MINERAL PROCESSING PLANTS – PROCESS EMISSION**~~
 ~~**LIMITATIONS AND CONTROLS:**~~ **CRUSHING AND SCREENING - PROCESS**
 EMISSION LIMITATIONS AND CONTROLS:

- 301.1 Process Emission Limitations:** ~~The owner and/or operator of a nonmetallic mineral processing plant~~ shall not discharge or cause or allow to be discharged into the ambient air:
- a. Stack emissions exceeding 7% opacity and containing more than 0.02 grains/dry standard cubic foot (gr/dscf) (50 mg/dscm) of particulate matter. ~~Such stack emissions shall be vented to a properly sized fabric filter baghouse.~~
 - b. Fugitive dust emissions exceeding 7% opacity from any transfer point on a conveying system.
 - c. Fugitive dust emissions exceeding 15% opacity from any crusher.
 - d. Fugitive dust emissions exceeding 10% opacity from any affected operation or process source, excluding truck dumping. ~~directly into any screening operation, feed hopper, or crusher.~~
 - e. Fugitive dust emissions exceeding 20% opacity from truck dumping directly into any screening operation, feed hopper, or crusher. Opacity observations to determine compliance with this section of this rule shall be conducted in accordance with the techniques specified in Appendix C-Fugitive Dust Test Methods of these rules.
- 301.2 Controls:** ~~For crushing and screening facilities, the~~ The owner and/or operator of a nonmetallic mineral processing plant shall implement all of the following process controls described in Section 301.2(a), Section 301.2(b), and Section 301.2(c) of this rule or shall implement process controls described in Section 301.2(a) and Section 301.2(d) of this rule:
- a. Enclose sides of all shaker screens.
 - b. Permanently mount watering systems (e.g., spray bars or an equivalent control) on: the points listed below for crushers, shaker screens, and material transfer points.
 - (1) Inlet and outlet of all crushers;
 - (2) Outlet of all shaker screens; and
 - (3) Outlet of all material transfer points, excluding wet plants.
 - c. Operate watering systems (e.g., spray bars or an equivalent control) on the points listed in Section 301.2(b) of this rule for crushers, shaker screens, and material transfer points, excluding wet plants, to continuously maintain a 4% minimum moisture content.
 - (1) The watering systems shall be maintained in good operating condition, as verified by daily inspections.
 - (2) The owner and/or operator shall investigate and correct any problems before continuing and/or resuming operations.
 - (3) The owner and/or operator shall conduct soil moisture tests as follows:

- (a) If the owner and/or operator is required to have in place a Fugitive Dust Control Technician according to Section 309 of this rule, then soil moisture tests shall be conducted twice daily in accordance with the test methods described in Section 502 of this rule.
- (b) If the owner and/or operator is not required to have in place a Fugitive Dust Control Technician according to Section 309 of this rule, then soil moisture tests shall be conducted daily in accordance with the test methods described in Section 502 of this rule.
- (c) If the owner and/or operator demonstrates that the 4% minimum moisture content is maintained for a minimum of four weeks, then soil moisture tests may be conducted weekly in accordance with the test methods described in Section 502 of this rule.
- (d) If the owner and/or operator fails to comply with the opacity limitations described in Section 301.1, Section 306.1, or Section 306.2 of this rule and/or if two consecutive soil moisture tests are below 4%, then the owner and/or operator shall conduct soil moisture tests in accordance with Section 301.2(c)(3)(a) or Section 301.2(c)(3)(b) of this rule, as applicable.
- (e) If the owner and/or operator of a facility complies with both of the following requirements, then the number of sampling points identified in Section 502.3(c)(1) through (3) of this rule may be reduced:
 - (i) A soil moisture test is conducted in accordance with the test methods described in Section 502 of this rule at the primary crusher, which indicates that at least a 5% minimum moisture content is maintained; and
 - (ii) A demonstration that complies with Section 502.3(d) of this rule is submitted to and approved by the Control Officer and is complied with in accordance with Section 502.3(d) of this rule.
- (4) The owner and/or operator may request in a permit application, with explanation, an alternative plan that justifies a minimum moisture content other than 4% and that justifies conducting fewer soil moisture tests as are required. In the request, the owner and/or operator shall submit to the Control Officer documentation regarding a minimum moisture content other than 4%, including, but not limited to, economics, emissions rates, water availability, and technical feasibility. In addition, the owner and/or operator shall demonstrate that the proposed alternative compliance demonstration plan will be equivalent in determining compliance with the soil moisture content requirements. Prior

approval from the Control Officer and the Administrator shall be received before implementing the plan.

- d.** Enclose and exhaust the regulated process to a properly sized fabric filter baghouse.

302 ASPHALTIC CONCRETE PLANTS - PROCESS EMISSION LIMITATIONS AND CONTROLS:

302.1 Process Emission Limitations: The owner and/or operator ~~of an asphaltic concrete plant~~ shall not discharge or cause or allow to be discharged into the ambient air:

- a. For non-rubberized asphaltic concrete plants, stack emissions exceeding 5% opacity and containing more than 0.04 gr/dscf (90 mg mg/dscm) of particulate matter ~~over a 6 minute period.~~
- b. For rubberized asphaltic concrete plants (when producing rubberized asphalt only), stack emissions exceeding 20% opacity and containing more than 0.04 gr/dscf (90 mg/dscm) of particulate matter ~~over a 6 minute period.~~
- c. ~~From all cement, lime, and/or fly ash storage silo(s), fugitive dust emissions exceeding 20% opacity.~~ Fugitive dust emissions exceeding 10% opacity from any affected operation or process source, excluding truck dumping.

302.2 Controls: The owner and/or operator ~~of an asphaltic concrete plant shall implement all of the following process controls:~~ shall, from all drum dryers, control and vent exhaust to a properly sized fabric filter baghouse.

- a. ~~On all cement, lime, and/or fly ash storage silo(s), install an operational overflow warning system/device. The system/device shall be designed to alert operator(s) to stop the loading operation when the cement, lime, and/or fly ash storage silo(s) are reaching a capacity that could adversely impact pollution abatement equipment.~~
- b. ~~On existing cement, lime, and/or fly ash storage silo(s), install a properly sized fabric filter baghouse, with an opacity limit of not greater than 5% over a 6 minute period.~~
- c. ~~On new cement, lime, and/or fly ash storage silo(s), install a properly sized fabric filter baghouse or equivalent device designed to meet a maximum outlet grain loading of 0.01 gr/dscf, with an opacity limit of not greater than 5% over a 6 minute period.~~
- d. ~~From all drum dryers, control and vent exhaust to a properly sized fabric filter baghouse, with an opacity limit of not greater than 5% over a 6 minute period.~~

**303 ~~CONCRETE PLANTS AND/OR BAGGING OPERATIONS – PROCESS EMISSION~~
~~LIMITATIONS AND CONTROLS:~~ RAW MATERIAL STORAGE AND DISTRIBUTION,
CONCRETE PLANTS, AND/OR BAGGING OPERATIONS - PROCESS EMISSION
LIMITATIONS AND CONTROLS:**

303.1 Process Emission Limitations: The owner and/or operator of a concrete plant and/or bagging operation shall not discharge or cause or allow to be discharged into the ambient air:

- a. Stack emissions exceeding ~~7%~~ 5% opacity.
- b. Fugitive dust emissions exceeding 10% opacity from any affected operation or process source, excluding truck dumping, ~~directly into any screening operation, feed hopper, or crusher.~~
- c. ~~Fugitive dust emissions exceeding 20% opacity from truck dumping directly into any screening operation, feed hopper, or crusher.~~

303.2 Controls: The owner and/or operator of a concrete plant and/or bagging operation shall implement the following process controls:

- a. On all cement, lime, and/or fly-ash storage silo(s), install an operational overflow warning system/device. The system/device shall be designed to alert operator(s) to stop the loading operation when the cement, lime, and/or fly-ash storage silo(s) are reaching a capacity that could adversely impact pollution abatement equipment.
- b. ~~On existing cement, lime, and/or fly ash storage silo(s), install a properly sized fabric filter baghouse, with an opacity limit of not greater than 5% over a 6 minute period.~~
- ~~e.b.~~ On new cement, lime, and/or fly-ash storage silos, install a properly sized fabric filter baghouse or equivalent device designed to meet a maximum outlet grain loading of 0.01 gr/dscf.
- ~~d.c.~~ On dry mix concrete plant loading stations/truck mixed product, implement one of the following process controls:
 - (1) Install a rubber fill tube;
 - (2) Install a water spray;
 - (3) Install a properly sized fabric filter baghouse or delivery system;
 - (4) Enclose mixer loading stations such that no visible emissions occur; or
 - (5) Conduct mixer loading stations in an enclosed process building such that no visible emissions from the building occur during the mixing activities.
- ~~e.d.~~ On cement silo filling processing/loading operations controls, install a pressure control system designed to shut-off cement silo filling processes/loading operations, if pressure from delivery truck is excessive, as defined in O&M Plan.

304 OTHER ASSOCIATED OPERATIONS: All other affected operations or process sources not specifically listed in Sections 301, 302, or 303 of this rule associated with the processing of nonmetallic minerals, all other fugitive dust emission limitations not specifically listed in Section 306 of this rule, all other fugitive dust control measures not specifically listed in Section 307 of this rule, and all overburden operations shall, at a minimum, meet the provisions of Rule 310 of these rules.

305 AIR POLLUTION CONTROL EQUIPMENT AND APPROVED EMISSION CONTROL SYSTEM (ECS): An owner and/or operator of a facility shall provide, properly install and maintain in calibration, in good working order, and in operation, at all times air pollution control equipment required by this rule. When selecting air pollution control equipment required by this rule, the owner and/or operator of a facility may consider the site-specific and/or material-specific conditions and logistics of a facility. When doing so, some air pollution control equipment may be more reasonable to implement than others. Regardless, any air pollution control equipment that is installed must achieve the applicable standard(s) required by this rule, as determined by the corresponding test method(s), as applicable, and must achieve other applicable standard(s) set forth in this rule. The owner and/or operator of a facility may submit a request to the Control Officer and the Administrator for the use of alternative air pollution control equipment. The request shall include the proposed alternative air pollution control equipment, the air pollution control equipment that the alternative would replace, and a detailed statement or report demonstrating that the air pollution control equipment would result in equivalent or better emission control than the equipment prescribed in this rule. Nothing in this rule shall be construed to prevent an owner and/or operator of a facility from making such demonstration. Following a decision by the Control Officer and the Administrator to grant the petition, the facility shall incorporate the alternative air pollution control equipment in any required Operation And Maintenance (O&M) Plan.

305.1 Operation And Maintenance (O&M) Plan Requirements For ECS:

- a.** An owner and/or operator of a facility shall provide and maintain, readily available on-site at all times, (an) O&M Plan(s) for any ECS, any other emission processing equipment, and any ECS monitoring devices that are used pursuant to this rule or to an air pollution control permit.
- b.** The owner and/or operator of a facility shall submit to the Control Officer for approval the O&M Plan(s) for each ECS and for each ECS monitoring device that is used pursuant to this rule.

- c. The owner and/or operator of a facility shall comply with all the identified actions and schedules provided in each O&M Plan.

305.2 Operation And Maintenance (O&M) Plan Requirements For Dust Control

Measures:

- a. An owner and/or operator of a facility shall provide and maintain, readily available on-site at all times, (an) O&M Plan(s) for equipment associated with any process fugitive emissions and fugitive dust control measures (i.e., gravel pads, wheel washers, truck washers, rumble grates, watering systems, and street sweepers) that are implemented to comply with this rule or an air pollution control permit.
- b. The owner and/or operator of a facility shall comply with all the identified actions and schedules provided in each O&M Plan.

305.2305.3 Providing And Maintaining ECS Monitoring Devices: An owner and/or operator of a facility operating an ECS pursuant to this rule shall install, maintain, and calibrate monitoring devices described in the O&M Plan(s). The monitoring devices shall measure pressures, rates of flow, and/or other operating conditions necessary to determine if the control devices are functioning properly.

305.3305.4 O&M Plan Responsibility: An owner and/or operator of a facility that is required to have an O&M Plan pursuant to Section 305.1 of this rule must fully comply with all O&M Plans that the owner and/or operator has submitted for approval, even if such O&M Plans have not yet been approved, unless notified in writing by the Control Officer.

306 FUGITIVE DUST EMISSION LIMITATIONS:

306.1 20% Opacity Limitation: ~~The~~ For emissions that are not already regulated by an opacity limit, the owner and/or operator of a facility shall not discharge or cause or allow to be discharged into the ambient air fugitive dust emissions exceeding 20% opacity, in accordance with the test methods described in ~~Section 502~~ Section 503 of this rule and in Appendix C-Fugitive Dust Test Methods of these rules.

306.2 Visible Emission Limitation Beyond Property Line: An owner and/or operator of a facility shall not cause or allow fugitive dust emissions from any active operation, open storage pile, or disturbed surface area associated with such facility such that the presence

of such fugitive dust emissions remain visible in the atmosphere beyond the property line of such facility.

306.3 Wind Event: The fugitive dust emission limitations described in Section 306.1 ~~and Section 306.2~~ of this rule shall not apply during a wind event, if the owner and/or operator of a facility meets the following conditions:

- a. Has implemented the fugitive dust control measures described in Section 307 of this rule, as applicable;
- b. Has compiled and retained records, in accordance with Section 501.4 of this rule, and has documented by records the occurrence of a wind event on the day(s) in question. The occurrence of a wind event must be determined by the nearest ~~Maricopa County Environmental Services Department Air Quality Division~~ Maricopa County Air Quality Department monitoring station, from any other certified meteorological station, or by a wind instrument that is calibrated according to manufacturer's standards and that is located at the site being checked; and
- c. Has implemented the following high wind fugitive dust control measures, as applicable:
 - (1) For an active operation, implement one of the following fugitive dust control measures, in accordance with the test methods described in Section 503 and Section 504 of this rule and in Appendix C-Fugitive Dust Test Methods of these rules:
 - (a) Cease active operation that may contribute to an exceedance of the fugitive dust emission limitations described in Section 306.1 ~~and Section 306.2~~ of this rule for the duration of the wind event and, if active operation is ceased for the remainder of the work day, stabilize the area; or
 - (b) Maintain a visible crust by applying water Before and during active operations, apply water or other suitable dust suppressant other than water or by implementing another fugitive dust control measure, in sufficient quantities to meet the stabilization standards described in Section 503 and Section 504 of this rule. to keep the soil visibly moist.
 - (2) For an inactive open storage pile, implement one of the following fugitive dust control measures, in accordance with the test methods described in Section 503 and Section 504 of this rule and in Appendix C-Fugitive Dust Test Methods of these rules:
 - (a) Maintain a ~~visible~~ soil crust by applying water or other suitable dust suppressant other than water or by implementing another fugitive dust

control measure, in sufficient quantities to meet the stabilization standards described in ~~Section 503 and Section 504~~ Section 505 of this rule.

- (b) Cover open storage pile with tarps, plastic, or other material such that wind will not remove the covering, if open storage pile is less than eight feet high.

- (3) For ~~a~~ an inactive disturbed surface area, implement one of the following fugitive dust control measures, in accordance with the test methods described in Section 503 and Section 504 of this rule and in Appendix C-Fugitive Dust Test Methods of these rules:

- (a) Uniformly apply and maintain surface gravel or a dust suppressant other than water; or
- (b) Maintain a ~~visible~~ soil crust by applying water or other suitable dust suppressant other than water or by implementing another fugitive dust control measure, in sufficient quantities to meet the stabilization standards described in ~~Section 503 and Section 504~~ Section 505 of this rule.

306.4 Silt Loading And Silt Content Standards For Unpaved ~~Internal~~ Roads And

Unpaved Parking And Staging Areas: From unpaved ~~internal~~ roads and unpaved parking and staging areas, the owner and/or operator of a facility shall not discharge or allow to be discharged into the ambient air fugitive dust emissions exceeding 20% opacity, in accordance with the test methods described in Section 502 of this rule and in Appendix C-Fugitive Dust Test Methods of these rules, and one of the following:

- a. For unpaved roads, silt loading equal to or greater than 0.33 oz/ft²; or silt content exceeding 6%.
- b. ~~Silt content exceeding 6%.~~ For unpaved parking and staging areas, silt loading equal to or greater than 0.33 oz/ft² or silt content exceeding 8%.

306.5 Stabilization Standards:

- a. An owner and/or operator of a facility with an open area or a disturbed surface area on which no activity is occurring (including areas that are temporarily or permanently inactive) shall be considered in violation of this rule if ~~any open storage pile and material handling or surface soils where support equipment and vehicles operate in association with such facility~~ area is not maintained in a manner that meets at least one of the standards listed below, as applicable.
 - (1) Maintain a ~~visible~~ soil crust;
 - (2) Maintain a threshold friction velocity (TFV) for disturbed surface areas corrected for non-erodible elements of 100 cm/second or higher;

- (3) Maintain a flat vegetative cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50%;
 - (4) Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30%;
 - (5) Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements;
 - (6) Maintain a percent cover that is equal to or greater than 10% for non-erodible elements; or
 - (7) Comply with a standard of an alternative test method, upon obtaining the written approval from the Control Officer and the Administrator. ~~of the Environmental Protection Agency (EPA).~~
- b. If no activity is occurring on an open storage pile and material handling or surface soils where support equipment and vehicles operate in association with such facility and if an open storage pile and material handling or surface soils where support equipment and vehicles operate in association with such facility contain more than one type of ~~disturbance~~ visibly distinguishable stabilization characteristics, soil, vegetation, or other characteristics, which are visibly distinguishable, ~~each representative surface shall be tested~~ the owner and/or operator shall test each representative surface separately for stability, in an area that represents a random portion of the overall disturbed conditions of the site, in accordance with the appropriate test methods described in ~~Section 503 and Section 504~~ Section 505 of this rule and in Appendix C-Fugitive Dust Test Methods of these rules. ~~and shall be included in or eliminated from the total size assessment of disturbed surface area(s) depending upon test method results.~~

307 FUGITIVE DUST CONTROL MEASURES: The owner and/or operator of a nonmetallic mineral processing plant and/or a rock product processing plant shall implement the fugitive dust control measures described in this section of this rule. When selecting a fugitive dust control measure(s), the owner and/or operator of a facility may consider the site-specific and/or material-specific conditions and logistics of a facility. When doing so, some fugitive dust control measures may be more reasonable to implement than others. Regardless, any fugitive dust control measure that is implemented must achieve the applicable standard(s) described in Section 306 of this rule, as determined by the corresponding test method(s), as applicable, and must achieve other applicable standard(s) set forth in this rule. The owner and/or operator of a facility may submit a

request to the Control Officer and the Administrator ~~Of The Environmental Protection Agency (EPA)~~ for the use of alternative control measure(s). The request shall include the proposed alternative control measure, the control measure that the alternative would replace, and a detailed statement or report demonstrating that the measure would result in equivalent or better emission control than the measures prescribed in this rule. Nothing in this rule shall be construed to prevent an owner and/or operator of a facility from making such demonstration. Following a decision by the Control Officer and the Administrator ~~of the EPA~~ to grant the petition, the facility shall incorporate the alternative control measure in any required Dust Control Plan. When engaged in the activities described in Section 301 and Section 307.1 through Section 307.9 of this rule, the owner and/or operator of a facility shall install, maintain, and use fugitive dust control measures as described in Section 307.1 through Section 307.9 of this rule, as applicable.

307.1 Open Storage Piles And Material Handling: The owner and/or operator of a facility shall implement all of the following fugitive dust control measures, as applicable. ~~in compliance with Section 306.1 and Section 306.5 of this rule.~~ For the purpose of this rule, open storage pile(s) and material handling does not include berms and guard rails that are installed to comply with 30 CFR 56.93000. However, such berms and guard rails shall be installed and maintained in compliance with Section 306.1, Section 306.2, and Section 306.5 of this rule.

- a. Prior to, and/or while conducting ~~stacking,~~ loading, and unloading operations, implement one of the following fugitive dust control measures:
 - (1) Spray material with water, as necessary; or
 - (2) Spray material with a dust suppressant other than water, as necessary.
- b. When not conducting ~~stacking,~~ loading, and unloading operations, implement one of the following fugitive dust control measures:
 - (1) Spray material with water, as necessary; ~~in compliance with Section 306.1 and Section 306.5 of this rule;~~
 - (2) Maintain a 1.5% or more soil moisture content of the open storage pile(s); ~~in compliance with Section 306.1 and Section 306.5 of this rule;~~
 - (3) Locate open storage pile(s) in a pit/in the bottom of a pit; ~~If implementing this fugitive dust control measure, the owner and/or operator of a facility shall also comply with the stabilization standards in Section 306.5 of this rule;~~
 - (4) Arrange open storage pile(s) such that storage pile(s) of larger diameter products are on the perimeter and act as barriers to/for open storage pile(s) that could create fugitive dust emissions; ~~If implementing this fugitive dust control measure, the owner and/or operator of a facility shall also comply with the stabilization standards in Section 306.5 of this rule;~~

~~(5) Meet one of the stabilization standards in Section 306.5 of this rule; or~~

~~(6)(5)~~ Construct and maintain wind barriers, storage silos, or a three-sided enclosure with walls, whose length is no less than equal to the length of the pile, whose distance from the pile is no more than twice the height of the pile, whose height is equal to the pile height, and whose porosity is no more than 50%; or If implementing this fugitive dust control measure, the owner and/or operator of a facility shall also comply with the stabilization standards in Section 306.5 of this rule;

~~(7)(6)~~ Cover open storage piles with tarps, plastic, or other material to prevent wind from removing the coverings.

- c. When installing new open storage pile(s) at an existing facility and/or when installing new open storage pile(s) at a new facility, the owner and/or operator shall implement all of the following fugitive dust control measures ~~in compliance with Section 306.1 and Section 306.5 of this rule~~, only if it is determined to be feasible on a case-by-case basis through the Dust Control Plan by assessing the amount of open land available at the property at the time the new open storage pile(s) are formed:
- (1) Install the open storage pile(s) at least 25 feet from the property line; and
 - (2) Limit the height of the open storage pile(s) to less than 45 feet.
- d. For existing open storage pile(s) and when installing open storage pile(s) for an existing facility or for a new facility, if such open storage pile(s) will be constructed over eight feet high and will not be covered, then the owner and/or operator shall install, use, and maintain a water truck or other method that is capable of completely wetting the surfaces of open storage pile(s). ~~in compliance with Section 306.1 and Section 306.5 of this rule.~~

307.2 Surface Stabilization Where Support Equipment And Vehicles Operate:

The owner and/or operator of a facility shall stabilize surface soils where loaders, support equipment, and vehicles will operate by implementing one of the following fugitive dust control measures, in compliance with Section 306.4 and/or Section 306.5 of this rule, as applicable: implement one of the following fugitive dust control measures on areas other than the areas identified in Section 307.3 and Section 307.4 of this rule where loaders, support equipment, and vehicles operate.

- a. ~~Pre-water surface soils~~ Apply and maintain water;
- b. Apply and maintain a dust suppressant, other than water; or
- c. Apply a gravel pad, in compliance with ~~the~~ Section 307.6(b)(4) of this rule.

307.3 Haul/Access Roads That Are Not In Permanent Areas Of A Facility:

- a. The owner and/or operator of a facility shall implement one of the following fugitive dust control measures, as applicable, ~~in compliance with Section 306.4 of this rule,~~ before engaging in the use of, or in the maintenance of, haul/access roads. Compliance with the provisions of this section of this rule shall not relieve any person subject to the requirements of this section of this rule from complying with any other federally enforceable requirements (i.e., a permit issued under Section 404 of the Clean Water Act).
 - (1) Install and maintain bumps, humps, or dips for speed control and apply water, as necessary;
 - (2) Limit vehicle speeds and apply water, as necessary;
 - (3) Pave;
 - (4) Apply and maintain a gravel pad in compliance with Section 307.6(b)(4) of this rule;
 - (5) Apply a dust suppressant, other than water; or
 - (6) Install and maintain a cohesive hard surface.
- b. For a new facility, if ~~implementing one~~ it is determined that none of the fugitive dust control measures described in Section 307.3(a) of this rule ~~is determined to be technically infeasible as obtained/approved in writing by the Control Officer and the Administrator of the Environmental Protection Agency (EPA) and as approved in the Dust Control Plan,~~ can be technically and feasibly implemented, then the owner and/or operator of a new facility shall maintain a minimum distance of 25 feet from the property line for haul/access roads associated with the new facility. Such determination shall be made and approved in writing by the Control Officer and the Administrator and shall be approved in the Dust Control Plan.

307.4 On-Site Traffic:

- a. The owner and/or operator of a facility shall require all batch trucks and material delivery trucks to remain on ~~internal~~ roads with paved surfaces or cohesive hard surfaces. ~~in the permanent areas of the facility /operation that include entrances, exits, warehouses and maintenance areas, office areas, concrete plant areas, asphaltic plant areas, and parking and staging areas, as approved in the Dust Control Plan.~~
- b. The owner and/or operator of a facility shall require all aggregate trucks to remain on ~~internal roads subject to Section 307.4(a) of this rule,~~ paved surfaces or cohesive hard surfaces, except when entering and exiting driving on roads leading to and from aggregate loading areas/loading operations, as approved in the Dust Control Plan.
- c. The owner and/or operator of a facility shall require all batch trucks and material delivery trucks to enter and exit the facility/operation only through entrances that

comply with the trackout requirements in ~~Section 307.5~~ Section 307.6 of this rule.
~~and that comply with Section 306.5 of this rule.~~

- d.** The owner and/or operator of a facility shall pave or install a cohesive hard surface on permanent areas of a facility on which vehicles drive, as approved in the Dust Control Plan.

307.5 Off-Site Traffic: When hauling and/or transporting bulk material off-site, the owner and/or operator of a facility shall implement all of the following control measures:

- a.** Load all haul trucks such that the freeboard is not less than three inches;
- b.** Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s); and
- c.** Cover haul trucks with a tarp or other suitable closure.

307.6 Trackout:

- a. Rumble Grate And Wheel Washer:** The owner and/or operator of a new permanent facility and the owner and/or operator of an existing permanent facility with a minimum of 60 aggregate trucks, mixer trucks, and/or batch trucks exiting a facility on any day onto paved public roadways/paved areas accessible to the public shall install, maintain, and use a rumble grate and wheel washer, in accordance with all of the following conditions, as applicable. For the purpose of this rule, a vehicle wash and/or a cosmetic wash may be substituted for a wheel washer, provided such vehicle wash and/or cosmetic wash has at least 40 pounds per square inch (psi) water spray from the nozzle (owner and/or operator of the facility shall have a water pressure gauge available on-site to allow verification of such water pressure), meets the definition of wheel washer (i.e., is capable of washing the entire circumference of each wheel of the vehicle), is operated in such a way that visible deposits are removed from the entire circumference of each wheel of the vehicle exiting the wash, is installed, maintained, and used in accordance with criteria in Section 307.6(a)(1)-(5) of this rule, and is approved in the Dust Control Plan for the facility.

- (1)** The owner and/or operator of a facility shall locate a rumble grate within 10 feet from a wheel washer. ~~The rumble grate and wheel washer shall be located no less than 30 feet prior to each exit that leads to a paved public roadway/paved area accessible to the public and that is used by aggregate trucks, mixer trucks, and/or batch trucks. The owner and/or operator of a facility may be allowed to install a rumble grate and wheel washer less than 30 feet prior to each exit, if the owner and/or operator of a facility can demonstrate to the Control Officer by September 30, 2005, that there is not adequate space to install a rumble grate~~

~~and wheel washer no less than 30 feet prior to each exit and that a rumble grate and wheel washer at a shorter distance will be adequate to prevent trackout.~~

(a) The rumble grate and wheel washer shall be located no less than 30 feet prior to each exit that leads to a paved public roadway/paved area accessible to the public and that is used by aggregate trucks, mixer trucks, and/or batch trucks.

(b) The owner and/or operator of a facility may be allowed to install a rumble grate and wheel washer less than 30 feet prior to each exit if the owner and/or operator of a facility can demonstrate to the Control Officer that there is not adequate space to install a rumble grate and wheel washer no less than 30 feet prior to each exit and that a rumble grate and wheel washer at a shorter distance will be adequate to prevent trackout.

(c) A rumble grate shall consist of raised dividers (rails, pipes, or grates) a minimum of three inches tall, six inches apart, and 20 feet long, to allow a vibration to be produced such that dust is shaken off the wheels of a vehicle as the entire circumference of each wheel of the vehicle passes over the rumble grate.

- (2) The owner and/or operator of a facility shall ensure that all aggregate trucks, mixer trucks, and/or batch trucks exit the facility via the rumble grate first and then the wheel washer.
- (3) The owner and/or operator of a facility shall post a sign by the rumble grate and wheel washer to designate the speed limit as 5 miles per hour.
- (4) The owner and/or operator of a facility shall pave the ~~internal~~ roads from the rumble grate and wheel washer to the facility exits leading to paved public roadways/paved areas accessible to the public.
- (5) The owner and/or operator of a facility shall ensure that all aggregate trucks, mixer trucks, and/or batch trucks remain on the paved ~~internal~~ roads between the rumble grate and wheel washer and the facility exits leading to paved public roadways/paved areas accessible to the public.

b. Rumble Grate, Wheel Washer, Or Truck Washer: The owner and/or operator of a facility not subject to Section 307.6(a) of this rule shall install, maintain, and use a rumble grate, wheel washer, or truck washer in accordance with all of the following:

- (1) A rumble grate, wheel washer, or truck washer shall be located no less than 30 feet prior to each exit that leads to a paved public roadway/paved area accessible to the public and that is used by aggregate trucks, mixer trucks, and/or batch trucks. ~~The owner and/or operator of a facility may be allowed to install a rumble grate, wheel washer, or truck washer less than 30 feet prior to each exit,~~

~~if the owner and/or operator of a facility can demonstrate to the Control Officer by September 30, 2005, that there is not adequate space to install a rumble grate, wheel washer, or truck washer no less than 30 feet prior to each exit and that a rumble grate, wheel washer, or truck washer at a shorter distance will be adequate to prevent trackout.~~

(a) The owner and/or operator of a facility may be allowed to install a rumble grate, wheel washer, or truck washer less than 30 feet prior to each exit if the owner and/or operator of a facility can demonstrate to the Control Officer that there is not adequate space to install a rumble grate, wheel washer, or truck washer no less than 30 feet prior to each exit and that a rumble grate, wheel washer, or truck washer at a shorter distance will be adequate to prevent trackout.

(b) A rumble grate shall consist of raised dividers (rails, pipes, or grates) a minimum of three inches tall, six inches apart, and 20 feet long, to allow a vibration to be produced such that dust is shaken off the wheels of a vehicle as the entire circumference of each wheel of the vehicle passes over the rumble grate.

- (2) The owner and/or operator of a facility shall ensure that all aggregate trucks, mixer trucks, and/or batch trucks exit the facility via a rumble grate, wheel washer, or truck washer.
- (3) The owner and/or operator of a facility shall post a sign by the rumble grate, wheel washer, or truck washer to designate the speed limit as 5 miles per hour.
- (4) If haul/access roads/~~internal roads~~ are unpaved between the rumble grate, wheel washer, or truck washer and the facility exits leading to paved public roadways/paved areas accessible to the public, a gravel pad shall be installed, maintained, and used from the rumble grate, wheel washer, or truck washer to such paved public roadways/paved areas accessible to the public in accordance with all of the following:
 - (a) Gravel pad shall be designed with a layer of washed gravel, rock, or crushed rock that is at least one inch or larger in diameter and 6 inches deep, 30 feet wide, and 50 feet long and shall be flushed with water or completely replaced as necessary to comply with the trackout threshold described in Section 307.6(d) of this rule.
 - (b) Gravel pad shall have a gravel pad stabilizing mechanism/device (i.e., curbs or structural devices along the perimeter of the gravel pad) and shall be flushed with water or completely replaced as necessary to comply with the trackout threshold described in Section 307.6(d) of this rule.

- c. **Exemptions For Wheel Washers:** The owner and/or operator of a facility shall not be required to install, maintain, and use a wheel washer, if any one of the following are applicable:
- (1) A facility has all paved ~~internal~~ roads and meters aggregate or related materials directly to a ready-mix or hot mix asphalt truck, with the exception of returned products. The owner and/or operator of the facility shall install, maintain, and use a rumble grate in compliance with Section 307.6(b) of this rule.
 - (2) A facility is less than 5 acres in land size and handles recycled asphalt and recycled concrete exclusively. The owner and/or operator of the facility shall install, maintain, and use a rumble grate in compliance with Section 307.6(b) of this rule and shall install a gravel pad in compliance with Section 307.6(b)(4) of this rule on all unpaved ~~internal~~ roads leading to the facility exits leading to paved public roadways/paved areas accessible to the public.
 - (3) A facility has a minimum of ¼ mile paved ~~internal~~ roads leading from a rumble grate to the facility exits leading to paved public roadways/paved areas accessible to the public.
 - (4) A facility meets the definition of infrequent operations, as defined in ~~Section 230~~ Section 229 of this rule. The owner and/or operator of the facility shall install, maintain, and use a rumble grate in compliance with Section 307.6(b) of this rule and shall install a gravel pad in compliance with Section 307.6(b)(4) of this rule. The gravel pad shall be installed for a distance of no less than 100 feet from the rumble grate to the facility exits leading to paved public roadways/paved areas accessible to the public. The owner and/or operator of the facility shall keep records in accordance with Section 500 of this rule, as applicable. The owner and/or operator of the facility shall notify the Control Officer in the event that the facility will operate more than 52 days per year based on the average rolling 3-year period after June 8, 2005 and the owner and/or operator of the facility shall comply with Section 307.6 of this rule, as applicable.
- d. **Trackout Distance:** An owner and/or operator of a facility shall not allow trackout to extend a cumulative distance of 25 linear feet or more from all facility exits onto paved areas accessible to the public. Notwithstanding the proceeding, the owner and/or operator of a facility shall clean up all other trackout at the end of the workday.
- e. **Cleaning Paved ~~Internal~~ Roads Identified In The Dust Control Plan:** The owner and/or operator of a facility shall clean all paved ~~internal~~ roads identified in the Dust Control Plan for a facility in accordance with all of the following as applicable:

- (1) The owner and/or operator of a facility with a minimum of 60 aggregate trucks, mixer trucks, and/or batch trucks exiting the facility on any day shall sweep the paved ~~internal~~ roads with a street sweeper by the end of each production work shift, if there is evidence of dirt and/or other bulk material extending a cumulative distance of 12 linear feet or more on any paved ~~internal~~ road.
- (2) The owner and/or operator of a facility with less than 60 aggregate trucks, mixer trucks, and/or batch trucks exiting the facility on any day shall sweep the paved ~~internal~~ roads with a street sweeper by the end of every other work day. On the days that paved ~~internal~~ roads are not swept, the owner and/or operator of a facility shall apply water ~~as necessary to comply with Section 306 of this rule~~ on at least 100 feet of paved ~~internal~~ roads or the entire length of paved ~~internal~~ roads leading to an exit to paved public roadways/paved areas accessible to the public, if such roadways are less than 100 feet long.
- (3) The owner and/or operator of a facility, who purchases street sweepers after June 8, 2005, shall purchase street sweepers that meet the criteria of PM₁₀-efficient South Coast Air Quality Management Rule 1186 certified street sweepers.
- (4) The owner and/or operator of a new facility shall use South Coast Air Quality Management Rule 1186 certified street sweepers to sweep paved ~~internal~~ roads.

307.7 Pad Construction For Processing Equipment: The owner and/or operator of a facility shall implement, maintain, and use fugitive dust control measures during the construction of pads for processing equipment, so as to meet all of the requirements in this rule, and shall identify, in the Dust Control Plan, such fugitive dust control measures.

307.8 Spillage: In addition to complying with the fugitive dust emission limitations described in Section 306 of this rule and implementing fugitive dust control measures described in Section 307.1 through Section 307.9 of this rule, as applicable, the owner and/or operator of a facility shall implement ~~one of~~ the following fugitive dust control measures, as applicable, when spillage occurs:

- a. Promptly remove any pile of spillage on paved haul/access roads/paved ~~internal~~ roads; or
- b. Maintain in a stabilized condition any pile of spillage on paved haul/access roads/paved ~~internal~~ roads and remove such pile by the end of each day; ~~or~~ and
- c. Maintain in a stabilized condition all other piles of spillage with dust suppressants until removal.

307.9 Night-Time Operations: The owner and/or operator of a facility shall implement, maintain, and use fugitive dust control measures at night, as approved in the Dust Control Plan.

308 FACILITY INFORMATION SIGN: The owner and/or operator of a facility subject to this rule shall erect and maintain a facility information sign at the main entrance such that members of the public can easily view and read the sign at all times. Such sign shall have a white background, have black block lettering that is at least four inches high, and shall contain at least all of the following information:

308.1 Facility name and permittee's name;

308.2 Current number of the air quality permit or of authority to operate under a general permit;

308.3 Name and local phone number of person(s) responsible for dust control matters; and

308.4 Text stating: "Dust complaints? Call Maricopa County Air Quality Department - (Insert the accurate Maricopa County Air Quality Department complaint line telephone number)."

308309 FUGITIVE DUST CONTROL TECHNICIAN: The owner and/or operator of a facility with a rated or permitted capacity of 25 tons or more of material per hour or with five acres or more of disturbed surface area subject to a permit, whichever is greater, shall have in place a Fugitive Dust Control Technician ~~or his designee~~, who shall meet all of the following qualifications:

308.1309.1 Be authorized by the owner and/or operator of the facility to have full authority to ensure that fugitive dust control measures are implemented on-site and to conduct routine inspections, recordkeeping, and reporting to ensure that all fugitive dust control measures are installed, maintained, and used in compliance with this rule.

309.2 Be trained in accordance with the Comprehensive Dust Control Training Class conducted or approved by the Control Officer, successfully complete, at least once every three years, such Comprehensive Dust Control Training Class, and have a valid dust training certification identification card readily accessible on-site while acting as a Fugitive Dust Control Technician.

~~308.2~~309.3 Be authorized by the owner and/or operator of the facility to install, maintain, and use fugitive dust control measures, deploy resources, and shutdown or modify activities as needed.

~~308.3~~309.4 ~~Be available within 30 minutes.~~ Be on-site at all times during primary dust generating operations related to the purposes for which the permit was obtained.

~~308.4~~ ~~Be issued a valid Certificate Of Completion of the Maricopa County Fugitive Dust Control Class.~~

~~308.5~~309.5 Be certified to determine opacity as visible emissions in accordance with the provisions of the EPA Method 9 as specified in 40 CFR, Part 60, Appendix A.

309.6 Be authorized by the owner and/or operator of the facility to ensure that the site superintendent or other designated on-site representative of the owner and/or operator of the facility and water truck and water pull drivers for each site be trained in accordance with the Basic Dust Control Training Class conducted or approved by the Control Officer with jurisdiction over the site and successfully complete, at least once every three years, such Basic Dust Control Training Class.

310 BASIC DUST CONTROL TRAINING CLASS:

310.1 At least once every three years, the site superintendent or other designated on-site representative of the permit holder, if present at a site that has more than one acre of disturbed surface area that is subject to a permit issued by the Control Officer requiring control of PM₁₀ emissions from dust generating operation, shall successfully complete a Basic Dust Control Training Class conducted or approved by the Control Officer.

310.2 At least once every three years, water truck and water-pull drivers shall successfully complete a Basic Dust Control Training Class conducted or approved by the Control Officer.

310.3 All persons having successfully completed training during the 2006 and 2007 calendar years shall be deemed to have satisfied the requirement to successfully complete the Basic Dust Control Training Class, if the training that was completed was conducted or approved by the Control Officer. Completion of the Comprehensive Dust Control

Training Class, as required in Section 309.2 of this rule, shall satisfy the requirement of this section of this rule.

309311 DUST CONTROL PLAN: ~~The owner and/or operator of a facility shall submit, to the Control Officer, a Dust Control Plan that describes all fugitive dust control measures to be implemented, in order to comply with Section 306 and Section 307 of this rule. The Dust Control Plan shall, at a minimum, contain all the information described in Rule 310 (Fugitive Dust) of these rules. All other criteria associated with the Dust Control Plan shall meet the criteria described in Rule 310 (Fugitive Dust) of these rules.~~

311.1 The owner and/or operator of a facility shall submit, to the Control Officer, a Dust Control Plan that describes all fugitive dust control measures to be implemented, in order to comply with Section 305.2, Section 306, Section 307, and Section 309 of this rule.

311.2 The owner and/or operator of a facility shall submit, to the Control Officer, a Dust Control Plan that describes all equipment associated with any process fugitive emissions to be implemented, in order to comply with Section 301 and Section 305.2 of this rule and that includes all of the information in Section 311.2(a) and Section 311.2(b) of this rule, as applicable. If an alternative plan for conducting required soil moisture tests is approved by the Control Officer, included in a Dust Control Plan, and implemented by the owner and/or operator, as allowed under Section 301.2(c)(6) of this rule, and if the Control Officer determines that such alternative plan included in a Dust Control Plan has been followed, yet fugitive dust emissions still exceed the standards of this rule, then the Control Officer shall issue a written notice to the owner and/or operator explaining such determination. The owner and/or operator shall make written revisions to the Dust Control Plan and shall submit such revised Dust Control Plan to the Control Officer within three working days of receipt of the Control Officer's written notice, unless such time period is extended by the Control Officer, upon request, for good cause. During the time that such owner and/or operator is preparing revisions to the Dust Control Plan, such owner and/or operator must still comply with all requirements of this rule.

a. Documentation for the soil moisture content in order to comply with Section 301.2 of this rule.

b. Documentation of soil moisture analysis for each move notice regarding portable sources.

311.3 The Dust Control Plan shall, in addition, contain all the information described in Rule 310-Fugitive Dust From Dust Generating Operations of these rules.

311.4 All other criteria associated with the Dust Control Plan shall meet the criteria described in Rule 310-Fugitive Dust From Dust Generating Operations of these rules.

311.5 The Control Officer shall approve, disapprove, or conditionally approve the Dust Control Plan, in accordance with the criteria used to approve, disapprove or conditionally approve a permit. Failure to comply with the provisions of an approved Dust Control Plan shall be deemed a violation of this rule.

311.6 With each move notice regarding portable sources, the owner and/or operator of a facility shall submit, to the Control Officer, a Dust Control Plan that meets the requirements of this section of this rule.

312 GENERAL REQUIREMENTS: **An owner and/or operator of a facility subject to this rule shall be subject to the standards and/or requirements of this rule at all times. Failure to comply with any one of the following requirements shall constitute a violation.**

312.1 Process emission limitations and controls described in Section 301, Section 302, and Section 303 of this rule.

312.2 Operation and maintenance (O&M) plan requirements for an emission control system and for dust control measures described in Section 305 of this rule.

312.3 Fugitive dust emission limitations described in Section 306 of this rule.

312.4 Fugitive dust control measures described in Section 307 of this rule.

312.5 Facility information sign requirement described in Section 308 of this rule.

312.6 Fugitive Dust Control Technician requirements described in Section 309 of this rule.

312.7 Basic Dust Control Training Class requirements described in Section 310.

312.8 Dust Control Plan requirements described in Section 311 of this rule.

312.9 Monitoring and recordkeeping requirements described in Section 500 of this rule.

312.10 Any other requirements of this rule.

SECTION 400 - ADMINISTRATIVE REQUIREMENTS

401 COMPLIANCE SCHEDULE: The newly amended provisions of this rule shall become effective upon adoption of this rule and the following schedule applies:

401.1 ~~Dust Control Plan:~~ ~~When complying with Section 309 of this rule, if a Dust Control Plan is required to be revised, then a revised Dust Control Plan shall be submitted to the Control Officer by September 30, 2005 or three months after rule adoption, whichever comes first.~~ **O&M Plan:**

- a.** The owner and/or operator of an existing facility shall revise/update all O&M Plans by (insert date) or three months after rule adoption, whichever is first.
- b.** The Control Officer shall take final action on an O&M Plan revision/update to address the newly amended provisions of this rule within 30 calendar days of the filing of the complete O&M Plan revision/update. The Control Officer shall notify the applicant in writing of his approval or denial.

401.2 ~~Pressure Control System:~~ ~~When complying with Section 303.2(e) of this rule, a pressure control system shall be installed by December 31, 2005 or six months after rule adoption, whichever comes first.~~ **Dust Control Plan:**

- a.** The owner and/or operator of an existing facility shall revise/update all Dust Control Plans by (insert date) or three months after rule adoption, whichever is first.
- b.** The owner and/or operator of a new facility shall submit to the Control Officer a Dust Control Plan at the time such owner and/or operator submits a permit application to the Control Officer.
- c.** The Control Officer shall take final action on a Dust Control Plan revision/update to address the newly amended provisions of this rule within 30 calendar days of the filing of the complete Dust Control Plan revision/update. The Control Officer shall notify the applicant in writing of his approval or denial.
- d.** The Dust Control Plan or the Dust Control Plan revision/update must be approved by the Control Officer before operations begin.

401.3 ~~Operational Overflow Warning System/Device:~~ ~~When complying with Section 302.2(a) and/or Section 303.2(a) of this rule, an operational overflow warning system/device shall be installed by December 31, 2005 or six months after rule adoption, whichever comes first.~~ **Basic Dust Control Training Class:** No later than December 31, 2008, a site

superintendent or other designated on-site representative of the permit holder, water truck drivers, and water pull drivers shall have successfully completed the Basic Dust Control Training Class, as described in Section 310 of this rule.

- 401.4** ~~Fugitive Dust Control Technician: When complying with Section 308 of this rule, a Fugitive Dust Control Technician shall be in place by December 31, 2005 or six months after rule adoption, whichever comes first.~~ **Comprehensive Dust Control Training Class:** No later than June 30, 2008, a Fugitive Dust Control Technician shall have successfully completed the Comprehensive Dust Control Training Class, as described in Section 309 of this rule.
- 401.5** ~~Surface Stabilization Where Support Equipment And Vehicles Operate: When complying with Section 307.2 of this rule, surface stabilization and/or paving shall be completed by December 31, 2005 or six months after rule adoption, whichever comes first.~~
- 401.6** ~~Trackout: When complying with Section 307.6 of this rule, a rumble grate, wheel washer, or truck washer shall be installed and a schedule for using PM₁₀-efficient South Coast Air Quality Management Rule 1186-certified street sweepers shall be in place by January 1, 2006.~~
- 401.7** ~~Process Emission Limitations And Controls: When complying with Section 301, Section 302, and/or Section 303 of this rule, process emission limitations shall be complied with and controls shall be installed by December 31, 2005 or six months after rule adoption, whichever comes first.~~

SECTION 500 - MONITORING AND RECORDS

- 501** **MONITORING, RECORDKEEPING AND REPORTING:** Any owner and/or operator of a facility subject to this rule shall comply with the following requirements. Records shall be retained for five years and shall be made available to the Control Officer upon request.
- 501.1** Operational information required by this rule shall be kept in a complete and consistent manner on-site and be made available without delay to the Control Officer upon request.
- 501.2** Records of the following process and operational information, as applicable, are required:
- a. General Data:** Daily records shall be kept for all days that a facility is actively operating. Records shall include all of the following:

- (1) Hours of operation;
- (2) Type of batch operation (wet, dry, central);
- (3) Throughput per day of basic raw materials including sand, aggregate, cement (tons/day);
- (4) Volume of concrete produced per day (cubic yards/day) and volume of asphaltic concrete produced per day (tons/day);
- (5) Volume of aggregate mined per day (~~cubic yards/day~~) (tons per day); and
- (6) Amount of each basic raw material including sand, aggregate, cement, fly ash delivered per day (tons/day).
- (7) For facilities that assert to be below the thresholds in Section 307.6(a) and Section 307.6(e)(1) of this rule, number of aggregate trucks, mixer trucks, and/or batch trucks exiting the facility.

b. Additional Data For Dry Mix Concrete Plants And/Or Bagging Operations:

Records shall include all of the following:

- (1) Number of bags of dry mix produced;
- (2) Weight (size) of bags of dry mix produced;
- (3) Kind and amount of fuel consumed in dryer (cubic feet/day or gallons/day); and
- (4) Kind and amount of any back-up fuel, if any.

c. Control And Monitoring Device Data: Records shall include all of the following:

- (1) For a fabric filter baghouse:
 - (a) Date of inspection;
 - (b) Date and designation of bag replacement;
 - (c) Date of service or maintenance related activities; and
 - (d) Time, date, and cause of fabric filter baghouse failure and/or down time, if applicable.
- (2) For a scrubber:
 - (a) Date of service or maintenance related activities;
 - (b) Liquid flow rate;
 - (c) Other operating parameters that need to be monitored to assure that the scrubber is functioning properly and operating within design parameters; and
 - (d) Time, date, and cause of scrubber failure and/or down time, if applicable.
- (3) For watering systems (e.g., spray bars or an equivalent control):
 - (a) Date, time, and location of each moisture sampling point; and
 - (b) Results of moisture testing.

501.3 ~~ECS O&M Plan Records:~~ An owner and/or operator of a facility shall maintain all of the following records in accordance with an approved O&M Plan:

- a.** For Any ECS, Any Other Emission Processing Equipment, And Any ECS Monitoring Devices That Are Used Pursuant To This Rule Or To An Air Pollution Control Permit:
- ~~a.~~**(1)** Periods of time that an approved ECS is operating to comply with this rule;
 - ~~b.~~**(2)** Periods of time that an approved ECS is not operating;
 - ~~c.~~**(3)** Flow rates;
 - ~~d.~~**(4)** Pressure drops;
 - ~~e.~~**(5)** Other conditions necessary to determine if the approved ECS is functioning properly;
 - ~~f.~~**(6)** Results of visual inspections; and
 - ~~g.~~**(7)** Correction action taken, if necessary.
- b.** For Equipment Associated With Any Process Fugitive Emissions And Any Fugitive Dust Control Measures That Are Implemented To Comply With This Rule Or To An Air Pollution Control Permit:
- (1)** A written record of self-inspection on each day that a facility is actively operating. Self-inspection records shall include daily inspections or in compliance with O&M Plan requirements, whichever is more frequent;
 - (2)** Maintenance of street sweepers; and
 - (3)** Maintenance of trackout control devices, gravel pads, wheel washers, and truck washers.

501.4 ~~Dust Control Plan Records:~~ ~~An owner and/or operator of a facility shall compile, maintain, and retain records as described in Rule 310 Fugitive Dust of these rules.~~ An owner and/or operator of a facility shall compile, maintain, and retain a written record of self-inspection of all fugitive dust control measures implemented, in order to comply with the Dust Control Plan, on each day that the facility is actively operating. Self-inspection records shall include information as described in Rule 310-Fugitive Dust From Dust Generating Operations of these rules.

501.5 ~~Basic Dust Control Training Class Records:~~ An owner and/or operator of a facility shall compile, maintain, and retain a written record for each employee subject to Section 310 of this rule. Such written records shall include the name of the employee, the date of the Basic Dust Control Training Class that such employee successfully completed, and the name of the agency/representative who conducted such class.

502 COMPLIANCE DETERMINATION –~~40 PART 60, APPENDIX A TEST METHODS~~

~~ADOPTED BY REFERENCE~~ **FOR PROCESS EMISSIONS AND CONTROLS:** Compliance determinations for activities regulated by Sections 301, 302, and/or 303 of this rule shall be made according to ~~The~~ the test methods for those subparts of CFR Part 60, Appendix A, adopted as of July 1, 2004, as listed below. Such subparts of CFR Part 60, Appendix A, adopted as of July 1, 2004, are adopted by reference as indicated. This adoption by reference includes no future editions or amendments. Copies of test methods referenced in Section 502 of this rule are available at ~~the~~ Maricopa County ~~Environmental Services~~ Air Quality Department, 1001 North Central Avenue, Phoenix, Arizona, 85004-1942. When more than one test method is permitted for a compliance determination, then an exceedance of the limits established in this rule, determined by any of the applicable test methods, constitutes a violation of this rule.

502.1 Grain Loading: Particulate matter and associated moisture content shall be determined using the applicable EPA Reference Methods 1 through 5, 40 CFR Part 60, Appendix A.

502.2 Opacity Determination Observations: ~~Opacity observations to measure the opacity of visible emissions shall be conducted in accordance with the test methods described in Appendix C (Fugitive Dust Test Methods) of these rules.~~ Opacity observations to measure visible emissions from activities regulated by Sections 301, 302, and/or 303 of this rule shall be conducted in accordance with the techniques specified in EPA Reference Method 203B (Visual Determination Of Opacity Of Emissions From Stationary Sources For Time-Exception Regulations). Emissions shall not exceed the applicable opacity standards described in Section 301, Section 302, and Section 303 of this rule for a period aggregating more than three minutes in any 60-minute period.

502.3 Soil Moisture Testing For Watering Systems:

- a. If twice daily moisture sampling is required, such sampling shall be conducted within one hour of startup and again at 3 pm or within one hour prior to daily shutdown but no less frequently than once every 8-hour period.
- b. If daily moisture sampling is required, such sampling shall be conducted within one hour after startup.
- c. Moisture testing shall be conducted on all crushers, shaker screens, and material transfer points (excluding wet plants). Unless prior approval from the Control Officer is granted, moisture testing shall be conducted at the following sample points:

- (1) Within 10 feet from the point where crushed aggregate material is placed on the discharge belt conveyor from the crusher;
- (2) Within 10 feet from the point where screened aggregate material is placed on the conveyor; and
- (3) From each stacker point.
- d. The number of sampling points identified in Section 502.3(c)(1) through (3) of this rule may be reduced, if the owner and/or operator of a facility complies with all of the following requirements:
 - (1) A 5% minimum moisture content, as demonstrated by a soil moisture test conducted in accordance with the test methods described in Section 502 of this rule, is maintained at the primary crusher;
 - (2) A minimum of 20 soil moisture samples are taken at all of the points identified in Section 502.3(c) of this rule;
 - (3) A 4% minimum moisture content, as demonstrated by a soil moisture test conducted in accordance with the test methods described in Section 502 of this rule and as demonstrated by the soil moisture samples required by Section 502.3(d)(2) of this rule, is maintained at all of the points identified in Section 502.3(c) of this rule; and
 - (4) A written request is submitted to and approved by the Control Officer to revise/modify the Dust Control Plan to reflect the change in moisture content and the reduced number of sampling points according to the demonstration made by the owner and/or operator of a facility according to this section of this rule.
- e. Moisture testing is not required on a crusher and/or screen plant equipped with a baghouse or fabric filter, electrostatic precipitator, or wet scrubber, excluding wet spray bars, for control of particulate matter.
- f. Moisture testing shall include all aggregate material less than 0.25 inch in diameter.
- g. Moisture testing shall be conducted in accordance with the requirements of American Society For Testing And Materials C566-97 (2004) "Standard Test Method For Total Evaporable Moisture Content Of Aggregate By Drying" with the exception that smaller sample portions may be used.

503 COMPLIANCE DETERMINATION FOR EMISSIONS AND CONTROLS THAT ARE REGULATED BY SECTION 304 AND/OR SECTION 306 OF THIS RULE: To determine compliance with the fugitive dust emission limitations described in Section 304 and/or Section 306 of this rule, opacity observations shall be conducted in accordance with the techniques specified in Appendix C-Fugitive Dust Test Methods of these rules.

~~503~~504 COMPLIANCE DETERMINATION FOR SOIL MOISTURE CONTENT AND SOIL COMPACTION CHARACTERISTICS TEST METHODS ADOPTED BY REFERENCE:

~~503.1~~504.1 ASTM Method ~~D2216-98~~ D2216-05 ("Standard Test Method For Laboratory Determination Of Water (Moisture) Content Of Soil And Rock By Mass"), ~~1998~~ 2005 edition.

~~503.2~~504.2 ASTM Method ~~D1557-91 (1998)~~ D1557-02e1 ("Test Method For Laboratory Compaction Characteristics Of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kNm/m³))"), ~~1998~~ 2002 edition.

~~504~~505 COMPLIANCE DETERMINATION FOR STABILIZATION STANDARDS TEST METHODS ADOPTED BY REFERENCE: The stabilization standards described in Section 306.5 of this rule shall be determined by using the following test methods in accordance with Appendix C-Fugitive Dust Test Methods of these rules:

~~504.1~~505.1 Appendix C, Section 2.1.1 (Silt Content Test Method) of these rules to estimate the silt content of the trafficked parts of unpaved roads (not to exceed 6%) and unpaved parking lots (not to exceed 8%).

~~504.2~~505.2 Appendix C, Section 2.3 (Test Methods For Stabilization-~~Visible~~ Soil Crust Determination) (The Drop Ball/~~Steel Ball~~ Test) of these rules for a ~~visible~~ soil crust.

~~504.3~~505.3 Appendix C, Section 2.4 (Test Methods For Stabilization-Determination Of Threshold Friction Velocity (TFV)) (Sieving Field Procedure) of these rules for threshold friction velocity (TFV) corrected for non-erodible elements of 100 cm/second or higher.

~~504.4~~505.4 Appendix C, Section 2.5 (Test Methods For Stabilization-Determination Of Flat Vegetative Cover) of these rules for flat vegetation cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50%.

~~504.5~~505.5 Appendix C, Section 2.6 (Test Methods For Stabilization-Determination Of Standing Vegetative Cover) of these rules for standing vegetation cover (i.e., vegetation that is

attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30%.

~~504.6~~**505.6** Appendix C, Section 2.6 (Test Methods For Stabilization-Determination Of Standing Vegetative Cover) of these rules for standing vegetation cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements.

~~504.7~~**505.7** Appendix C, Section 2.7 (Test Methods For Stabilization-Rock Test Method) of these rules for a percent cover that is equal to or greater than 10%, for non-erodible elements.

~~504.8~~**505.8** An alternative test method approved in writing by the Control Officer and the Administrator. ~~of the EPA.~~

~~505~~**506** **CERTIFIED STREET SWEEPING EQUIPMENT LIST ADOPTED BY REFERENCE:**

The list of street sweeping equipment (as of July 9, 2004) that has met the South Coast Air Quality Management Rule 1186 certification standards is found in support documents for the South Coast Air Quality Management District Regulation XI-Source Specific Standards, Rule 1186-PM₁₀ Emissions From Paved And Unpaved Roads And Livestock Operations and is adopted by reference. A copy of the list of certified street sweeping equipment can also be obtained at Maricopa County Air Quality Department, 1001 North Central Avenue, Phoenix, Arizona, 85004.